A REPORT ON THE ACTIVITIES

of the

DEPARTMENT OF PHYSICS

to the Dean of the

COLLEGE OF ENGINEERING

for the year

1954-1955
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IV. RECORD OF GENERAL ACTIVITIES
Supplementary Material Attached to Our Copy

First Semester Registrations in Physics Courses 1947-8 to Date
Second Semester Registrations in Physics Courses 1947-8 to Date
Summary of Registrations in Physics During Summer Sessions 1948-Date
Degrees Conferred 1954-1955
Teaching Assignments and Course Enrollments I Semester 1954-55
Teaching Assignments and Course Enrollments II Semester 1954-55
Physics Colloquium Speakers and Topics 1954-55
Solid State Seminars 1954-55
Physics Department Committees 1954-55
I. Introduction

This report summarizes the activities of the physics department during 1954-55 in teaching and research. Section II has to do with teaching. It contains statistics on enrollments and degrees conferred and discusses briefly changes in courses and curricula during the present year. Section III summarized the research activities, with information on fields of research, theses and publications and the distribution of staff and supporting funds among the areas of research.

Records of general activities of all members of the staff are included in a later section.

A general statement for the year is that the department has continued on the high level of performance in its teaching and research established after a period of growth and expansion which occurred between 1946 and about 1952 or 1953. The two largest features of the period of growth were the establishment of the betatron laboratory and the construction of the 350 MEV betatron, and the development of a really outstanding faculty and broad program in the physics of the solid state. Also in other areas of nuclear physics, experimental and theoretical, research programs of the highest quality and significance have been developed by members of the department. To complement these research
programs advanced courses in physics of solids and nuclear physics have been established during 1954-55 to provide the graduate students a better organized presentation of these rapidly developing fields than the less formally arranged special-subject seminars of recent years. These courses are listed in the next section.

A reflection of the productivity and distinction of the department has been the very strong effort to persuade members of the staff to accept positions in other universities and scientific organizations. During the year at least fourteen of our physicists have been offered positions of high prestige and considerable increases in salary. So far none have accepted a position elsewhere and it is believed that this is mainly because they like to remain in a department with the great strength and activity they themselves have developed.

II. Teaching Activities

Enrollments. Numerical data on enrollments, numbers of physics majors and degrees granted are given in Table I. Comparison with recent years is shown graphically in Figures 1 and 2.

The most noteworthy feature of enrollments is the continuing rapid rise in the number of students in the general physics courses, from 917 in the first semester of
TABLE I. Enrollments in Courses and Degrees in Physics

A. Registration in Courses

The total registration in courses in physics during the year was as follows:

<table>
<thead>
<tr>
<th>Type of Courses</th>
<th>I Sem.</th>
<th>II Sem.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic physics (&quot;100&quot; courses)--regular</td>
<td>1 021</td>
<td>1 238</td>
</tr>
<tr>
<td>Basic physics (&quot;100&quot; courses)--corres.</td>
<td>47</td>
<td>31</td>
</tr>
<tr>
<td>&quot;200&quot; and &quot;300&quot; courses</td>
<td>237</td>
<td>295</td>
</tr>
<tr>
<td>Graduate (&quot;400&quot; courses)</td>
<td>239</td>
<td>204</td>
</tr>
<tr>
<td>Total registrations</td>
<td>1 544</td>
<td>1 768</td>
</tr>
</tbody>
</table>

The first semester registration (exclusive of correspondence courses) in comparison with recent years is shown in Figure 1.

B. Physics Majors

The numbers of individuals whose major subject is physics enrolled during the year are as follows:

- Undergraduates - LAS College: 18
- Undergraduates - Engineering College: 161
- Undergraduates or Graduates - Teacher Training: 2
- Graduate students in physics: 147

Total physics majors: 328

C. Degrees Conferred

The degrees conferred are shown in the following table. (The June figures are tentative and will be corrected to actual after Commencement.)

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<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>BS in Physics (LAS)</td>
<td></td>
<td></td>
<td></td>
<td>34</td>
<td>4</td>
</tr>
<tr>
<td>BS in Engineering Physics</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>9</td>
<td>12</td>
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<tr>
<td>BS in Teaching of Physics</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Master's in Physics</td>
<td>11</td>
<td>-</td>
<td>18</td>
<td>12</td>
<td>41</td>
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<tr>
<td>Ph.D. in Physics</td>
<td>-</td>
<td>6</td>
<td>3</td>
<td>12</td>
<td>21</td>
</tr>
</tbody>
</table>

Total degrees conferred: 13

A comparison with recent years is shown in Figure 2.
Fig. 1
I Semester Registrations in Physics Courses

- "100" Courses
- "200" and "300" Courses
- "400" Courses
- 493 -- Research Course
Fig. 2

Degrees Conferred in Physics Department

(All figures are actual except for current year which includes June "Candidates"

- Bachelor's Degrees
- Master's Degrees
- Doctor's Degrees

<table>
<thead>
<tr>
<th>Year</th>
<th>Bachelor's</th>
<th>Master's</th>
<th>Doctor's</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947-48</td>
<td>31</td>
<td>39</td>
<td>17</td>
</tr>
<tr>
<td>1948-49</td>
<td>25</td>
<td>36</td>
<td>17</td>
</tr>
<tr>
<td>1949-50</td>
<td>28</td>
<td>29</td>
<td>18</td>
</tr>
<tr>
<td>1950-51</td>
<td>19</td>
<td>31</td>
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</tr>
<tr>
<td>1951-52</td>
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<td>28</td>
<td>22</td>
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<td>1952-53</td>
<td>17</td>
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<tr>
<td>1953-54</td>
<td>13</td>
<td>30</td>
<td>21</td>
</tr>
<tr>
<td>1954-55</td>
<td>13</td>
<td>32</td>
<td>20</td>
</tr>
</tbody>
</table>
this year and 1238 in the second semester, and to an estimated 1700 in the fall of 1955. The increasing numbers of engineering students and the change in required physics from 2 to 3 semesters for engineers are the reasons for this rise in enrollment.

The number of undergraduate majors (171 in all classes) is also increasing although our present senior class of 13 June graduates is one of the smallest since the war. The number of graduate students has held steadily at 140 ± 10% for several years but will increase in 1955-56 as the number of graduate student teaching assistants rises. Twenty-one Ph.D. degrees and 41 M.S. degrees have been awarded in 1954-55.

Staff. Detailed lists of the teaching staff and their assignments are available but not included in the report. In Figure 3 a graph is shown of the full-time equivalent staffs on teaching and research appointments, at junior (graduate student assistants) and senior levels.

As a general rule, to which there are several exceptions for good reason, all members of the staff participate in both elementary and advanced teaching. A strong effort is made to keep the ratio of senior to junior staff as large as possible but the ratio slips down as the enrollment rises. In 1955-56 twenty additional assistants will be used to handle added sections of elementary physics.
Fig. 3

Teaching and Research Staff

- Senior Staff Teaching
- Junior Staff Teaching
- Senior Staff Research
  (Does not include dept. members' time spent on CSL Project)
- Junior Staff Research

Budget limitations do not permit any increase in senior staff for this purpose.

The general records of activities of the teaching and research staff are in the later pages of this report.

Changes in courses and curricula.

a. The new three-semester general course for engineering and science students is now in full operation with all three parts given simultaneously in the second semester of 1954-55. The plan of giving a more intensive course without extending the number of topics treated in the previous two-semester course is being rigorously followed. There are qualitative indications that the course is a definite improvement on the two-semester course.

b. Advanced graduate courses in the two most active fields in the department, nuclear physics and physics of solids, have been formally organized and approved during the year. The subjects have been treated more or less formally in seminars as the fields and staff concerned have developed in recent years. Specific announcements of these courses in the catalog will help prospective and present graduate students to plan for our offering of courses in these frontier fields.
In the physics of solids a cycle of four one-semester courses will be offered in rotation:

Physics 436  Selected Topics in Physics of Solids.
   A. Imperfections in Metals
   B. Imperfections in Ionic Crystals
   C. Advanced Quantum Theory of Solids
   D. Conduction in Metals and Semiconductors

In theoretical nuclear physics and quantum theory four courses will be offered in place of the present two, Physics 487 and 488. They will be designated:

Physics 487  Topics in Advanced Quantum Theory
   A. Advanced Quantum Mechanics
   B. Quantum Electrodynamics

Physics 488  Topics in Theoretical Nuclear Physics
   A. Nuclear Structure and Transformations
   B. Mesons and High Energy Nuclear Physics

c. Our proposed Curriculum in Physics for the LAS college has been approved by the LAS college policy committee, but has not reached the LAS general faculty for approval. Its purpose is to provide definitely outlined guidance for high school students and college freshman who want to enter the LAS college and major in physics. Guidance is needed to plan the long sequences of mathematics and physics necessary for a strong undergraduate major in physics.
Entrance requirements in mathematics are similar to those for engineering students. Essentially all LAS general requirements are met in the curriculum.

d. The rising pressure of enrollment on space and staff has made it necessary to eliminate some courses which require laboratory space and are primarily service courses. Physics 241 and Physics 270, intermediate courses in electricity and light respectively, have not been given this year and Physics 232, physics of music, is given this semester for the last time until more laboratory space is available.

III. Research Activities

Fields of Research. The two general fields of greatest research interest in the department are nuclear physics and physics of solids. In each of these fields there is a widely diversified program of experimental research and a strong program of related theoretical physics research. Smaller programs are continuing in other fields.

The nuclear physics program at present includes the work at the betatron and cyclotron laboratories and that of several groups in the Physics Laboratory in such
subjects as nuclear magnetic resonance, angular correlation of successive nuclear radiations, nuclear spectroscopy, cosmic rays and elementary particles and the role of the neutrino in beta ray radioactivity.

In solid state physics the subjects of investigation cover electrical conductivity including the properties of semiconductors and superconductors, optical and photo conductive properties of crystals, properties of matter at extremely low temperatures, plasticity of metals and other materials, damage by nuclear radiations of solid materials, and diffusion in metals and other materials by means of radioactive-tracer and other techniques.

Staff, Theses, Publications. Forty-nine graduate students registered in Physics 493 (Research) in the fall of 1954. Most of them are at work on various stages of their Ph.D. thesis investigations. Twenty-one have completed Ph.D. theses in 1954-55. Their names and thesis titles are listed in Table II. Figure 2 shows the number of Ph.D. degrees given each year since 1947-48.

Nearly all of the teaching staff are actively engaged in research and direction of thesis work. In addition there is a considerable number on research appointment as shown in Figure 3. Most of the research assistants (29 f.t.e.) are graduate students on half-time appointment. Of the 19 senior research appointments most are recent Ph.D.'s who
<table>
<thead>
<tr>
<th>Ph.D. Theses Completed in 1954-55</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.Q. Barton - &quot;Photopromons from Light Elements&quot;</td>
</tr>
<tr>
<td>J.F. Cochran - &quot;Phase Transitions in Superconductors&quot;</td>
</tr>
<tr>
<td>W.D. Compton - &quot;Diffusion in Silver Chloride&quot;</td>
</tr>
<tr>
<td>Meyer Garber - &quot;Low Temperature Electronic Properties of Silicon&quot;</td>
</tr>
<tr>
<td>Solomon Gartenhaus - &quot;The Two-Nucleon Potential From the Cut-Off Yukawa Theory&quot;</td>
</tr>
<tr>
<td>F.H. Giles - &quot;Anodic Dissolution and Electro Polishing of Copper in Phosphoric Acid&quot;</td>
</tr>
<tr>
<td>B.B. Houston - &quot;Imperfections in Alkali Halide Crystals&quot;</td>
</tr>
<tr>
<td>J.W. Kauffman - &quot;The Quenching in of Vacancies in Gold&quot;</td>
</tr>
<tr>
<td>A.B. Kuper - &quot;Diffusion in Metals&quot;</td>
</tr>
<tr>
<td>James E. Leiss - &quot;Photoproduction of $\pi^+$ Mesons&quot;</td>
</tr>
<tr>
<td>D.B. Lichtenberg - &quot;Absorption of Pi-Mesons in Nuclei&quot;</td>
</tr>
<tr>
<td>F.E. Mills III - &quot;Photo Production of Neutral Mesons from Hydrogen&quot;</td>
</tr>
<tr>
<td>W.M. Moellerling - &quot;Hyperfine Structure of Hydrogen&quot;</td>
</tr>
<tr>
<td>T.N. Morgan - &quot;Optical Properties of Germanium at Low Temperatures&quot;</td>
</tr>
<tr>
<td>R.E. Mould - &quot;Effect of Mechanical Hardness on the Superconducting Transition in Aluminum&quot;</td>
</tr>
<tr>
<td>A.S. Penfold - &quot;Nuclear Photo-effect in Cl$_6^-$&quot;</td>
</tr>
<tr>
<td>R.A. Reitz - &quot;Photo-mesons from Light Elements&quot;</td>
</tr>
<tr>
<td>R. A. Rubenstein - &quot;The Auger Effect&quot;</td>
</tr>
<tr>
<td>G.A. Russell - &quot;Photo Conductivity in Alkali Halides&quot;</td>
</tr>
<tr>
<td>H.M. Schey - &quot;Compton Scattering by Protons&quot;</td>
</tr>
<tr>
<td>Edward Sonder - &quot;Diffusion in Solids&quot;</td>
</tr>
</tbody>
</table>
are contributing substantially to the research program in basic physics and at the same time increasing their competence as investigators under the guidance of our experts in physics of solids and nuclear physics. There are in addition to the staff on research appointments 7 post-doctoral research fellows all but one of whom elected to come to Illinois on fellowships not provided by the University.

The number of published articles describing the results of original investigations is shown in Figure 4 to have continued at the high level of recent years.

Support of Research. With the exception of the betatron program nearly all of the support of basic research in physics comes from contract grants from federal agencies, especially the Armed Services, the Atomic Energy Commission and the National Science Foundation. A list of current contracts with their current annual rates of support is given in Table III. In Table IV the financial support from state funds and from contracts is shown for each of the subject areas of research. Nuclear physics received about 25% of its direct support from state funds and physics of solids about 6% from state funds. Such an estimate ignores the large indirect contribution by the
Fig. 4

Physics Department Research Publications

--- Articles in Scientific Journals Only

"Letters to Editor" of Scientific Journals and "Shop Notes" in R.S.I., etc.
**TABLE III. Government Contracts in the Physics Department**

<table>
<thead>
<tr>
<th>Contract No.</th>
<th>Subject and Principal Investigator</th>
<th>Current Year Est. Yearly Amt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N6ori-071(01)</td>
<td>Nuclear Physics - F.W. Loomis</td>
<td>$419,000.00</td>
</tr>
<tr>
<td>N6ori-071(29)</td>
<td>Expt. Research Upon Insulating Crystals - R.J. Maurer</td>
<td>12,800.00</td>
</tr>
<tr>
<td>N6ori-071(31)</td>
<td>Theoretical Research on Properties of Insulating Solids - F. Seitz</td>
<td>22,600.00</td>
</tr>
<tr>
<td>N6ori-071(54)</td>
<td>Exptl. Research on Plastic Deformation - J.S. Koehler</td>
<td>16,000.00</td>
</tr>
<tr>
<td>AT(11-1)67 Proj.3</td>
<td>Exptl. Research on Mechanism of Substitutional Diffusion in Metals - F. Seitz</td>
<td>23,835.00</td>
</tr>
<tr>
<td>AT(11-1)-182</td>
<td>Exptl. Research on Radiation Damage - J.S. Koehler</td>
<td>120,284.00</td>
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<tr>
<td>DA-11-022-ORD-939</td>
<td>Exptl. Research on Kinetics of Electrode Films - J.H. Bartlett</td>
<td>9,442.00</td>
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<tr>
<td>DA-11-022-ORD-992</td>
<td>Exptl. Research Upon Superconducting Metals - R.J. Maurer</td>
<td>22,747.00</td>
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<tr>
<td>DA-11-022-ORD-1001</td>
<td>Theoretical Research on Conduction of Electricity in Solids - John Bardeen</td>
<td>18,135.00</td>
</tr>
<tr>
<td>DA-11-022-ORD-1212</td>
<td>Exptl. Research on Plastic Deformation - J.S. Koehler</td>
<td>10,000.00</td>
</tr>
<tr>
<td>AF18(600)-662</td>
<td>Exptl. Research Upon the Electronic Properties of Nonmetallic Crystals - R.J. Maurer</td>
<td>10,400.00</td>
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<tr>
<td>AF18(600)-689</td>
<td>Theoretical Research in Physics of Solids - F. Seitz</td>
<td>15,500.00</td>
</tr>
<tr>
<td>NSF- Grant 456</td>
<td>Photo-Production of Pi Mesons - D.W. Kerst</td>
<td>6,000.00</td>
</tr>
<tr>
<td>NSF- Grant 1018</td>
<td>Plastic Deformation - J.S. Koehler and F. Seitz</td>
<td>9,085.00</td>
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<tr>
<td>NSF- Grant 1019</td>
<td>Low Temperature Research on Polar Crystals - R.J. Maurer</td>
<td>7,164.00</td>
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<tr>
<td>NSF- Grant 1026</td>
<td>Midwest Accelerator - Kerst</td>
<td></td>
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</table>

**Total**  
$751,698.00
TABLE IV.
RESEARCH—Financial Support and Distribution of Staff and Student Interests

<table>
<thead>
<tr>
<th>Field</th>
<th>Univ. of Illinois Specific Support</th>
<th>Contract Support (Annual Rate)</th>
<th>Staff Interest in Field</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Senior</td>
<td>Junior</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>On Teaching Appointment</td>
<td>On Research Appointment</td>
</tr>
<tr>
<td>Nuclear Physics</td>
<td>123,943.</td>
<td>406,000</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>(Physics Betatron)</td>
<td>3,600.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MURA— (Nuclear)</td>
<td>1,244.</td>
<td>29,578.</td>
<td>1</td>
<td>3</td>
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<tr>
<td>(Research Board)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Physics of Solids</td>
<td>17,100.</td>
<td>280,493.</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>(Physics Station)</td>
<td></td>
<td></td>
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<tr>
<td>Cosmic Rays</td>
<td>12,975.</td>
<td>19,000.</td>
<td>1</td>
<td>1</td>
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<tr>
<td>(Research Board)</td>
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<tr>
<td>Electrode Physics</td>
<td>3,000.</td>
<td>7,942.</td>
<td>1</td>
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<tr>
<td>(Research Board)</td>
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<tr>
<td>Bio-physics</td>
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<tr>
<td>Total</td>
<td>$161,862.</td>
<td>$743,013.</td>
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</table>

Contract indirect cost funds allocated to the department (about $42,000. for the year) are assigned to research projects in greatest need of additional support.
state for salaries of the teaching staff who participate in research, for laboratory facilities and for non-academic staff on state funds.

**Control Systems Laboratory.** Members of the Physics Department have continued to provide active leadership in the major projects of C.S.L. Nine members of the department have been so engaged, on part or full-time basis, during 1954-55.
First Semester Registrations in Physics Courses 1947-8 to Date

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<tr>
<td>103</td>
<td>680</td>
<td>416</td>
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Myer Bloom
Hugh Needham Brown
Thomas Ripley Carver
Howard Gordon Cooper, Jr.
Donald Robert Maxson
Burton Harlow Muller
Van Olin Nicolai
David Sonny Selengut
Abraham Sosin
Kenneth J. Teegarden
Edward Ansil Whalin

M.S. in Physics
Marvin Denham Girardeau, Jr.
Harold Eugene Hall
Walter Ashley Harrison
Nathan Levine
Daniel Charles Mattis
Jane Van Winkle Morgan
Albert Eugene Murray
Richard Henry Parker
Wilbert Clarence Prothe
Raymond Solomon
Raydong Sun

B.S. in Physics
Ronald Glenn Peterson
Irwin Schneider

August 1954

M.S. in Physics
Bradford Stearns Brown
Ralph Sherman Cooper
Thomas Leo Estle
Norwood Babcock Gove
Icko Iben, Jr.
Carl Raeside Kannewurf
John Randolph Manning
James Edgar Mercereau
John Robert Schrieffer
Richard Walter Senseman
Alfred Carl Switendick

B.S. in Engineering Physics
Alan Blankfield
John Eugene Chin
Alan Coulter England
Richard Charles Fedder
Herbert Wayne Kuehne
Robert Lee Mieher
William Lenox Perkins
Robert Frank Trapp
Gloria Esther Winkel

October 1954

Ph.D. in Physics
John Francis Cochran
Meyer Garber
William Marshall Moellering
Thomas Nolen Morgan
Richard Everett Mould
Harold Moritz Schey

B.S. in Engineering Physics
Fred Albert Dieter
Chin Han Sah
February 1955

Ph.D. in Physics

James Elroy Leiss
Richard Allen Rubenstein
Edward Sonder

B.S. in Engineering Physics

Samuel Melvin Harris

M.S. in Physics

Thomas Edward Baker, Jr.
James Havens Bredt
Theodore Grant Castner, Jr.
Roland deWit
Lowell Thomas Dillman
Jack LeRoy Flinner
Richard Aloysius Harber
William Bernard Herrmannsfeldt
Mason Webster Huse, Jr.
Charles Edward Klabunde
Harold Ralph Lewis, Jr.
David Erickson Sawyer
Bruce Laurence Scott
William Walter Simmons
John Joseph Sinai
Edward Stanley Sobolak
Sandra Ruth Tausig
Roger Steven VanHeyningen

candidates June 1955

Ph.D. in Physics

Mark Guayle Barton
Walter Dale Compton
Solomon Gartenhaus
Frederick Harvey Giles
Bland Bryan Houston
John William Kauffman
Alan Birk Kuper
Don Bernett Lichtenberg
Frederick Eugene Mills, III
Alan Scardeburg Penfold
Robert Alan Reitz
George Albert Russell

M.S. in Physics

Reuben William Aboudi
Alan Blankfield
Carl Nelson Cederstrand
Adrian Vaughn Clark
Mary Elizabeth Cunningham
Gloria Winkel deWit
Ronald Fuchs
Lorenzo Philip Greene
Howard Roscoe Hart
David William Lynch
Robert Lee Mieher
Yau Chien Tang

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Bernard Irwin Bayer
Arthur Lloyd Eggers
William John Fanning
Eugene Lyle Hubbard
Ronald Grant Lambert
Arthur Charles Lind
Richard David Luders
Kenneth Rose
Robert Alfred Stein

B.S. in Teaching of Physics

Jennis Joseph Bapst

B.S. in Physics

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Duane Stanley Steidinger
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### Teaching Assignments and Course Enrollments

**II Semester 1954-1955**

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Teaching Assignments and Course Enrollment
In Advanced Courses II Semester 1954-55

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Physics Colloquium
1954 - 1955

Sept. 23  E. A. Gulbransen, Westinghouse Research Lab.,
"Living with Metals."  co-speaker: J. S. Koehler,
"Dislocations in Crystals."

Sept. 30  R. D. Hill, "Curious Particles of Physics"

Oct.  7  D. R. Maxson, "Electron-Neutrino Angular Correlation
in the Beta-Decay of Ne-9."

Oct. 14  Dr. Werner Heisenberg, Max Planck Institute for
Theoretical Physics, "Multiple Production of Mesons"

Oct. 21  Dr. K. A. Brueckner, Indiana University, "Nuclear
Saturation and the Independent Particle Model of the
Nucleus"

Oct. 27  Prof. Maurice Goldhaber, Brookhaven National Laboratory,
"An Attempt to Classify the Heavy Mesons"

Oct. 28  Dr. L. J. Koester, "The Photoproduction of \( \pi^0 \) Mesons
in Hydrogen and Helium"

Nov.  4  Professor David C. Peaslee, Purdue University,
Department of Physics, "The Beta-Decay Interaction."

Nov. 11  Professor Pierre Aigrain, "Semiconductor Research at
the Ecole Normale"

Nov. 18  Dr. W. F. Berg, British Kodak Co., "Some Aspects of
the Theory of the Photographic Image."

Dec.  3  Professor Frits Zernike, Natuurkundig Laboratorium,
University of Groningen, Netherlands, "The Formation
of the Microscope Image Including the Phase-Contrast
Image."

Dec.  9  E. L. Goldwasser, "A Survey of Photo-Meson Experimental
Results and Their Relation to Theory."

Jan.  6  P. Gerald Kruger, "Boron Uptake on Mouse Brain Neoplasm"

Jan. 13  Professor W. W. Beeman, University of Wisconsin,
"Cold Worked Metals and Small Angle X-Ray Scattering."

Feb. 10  Dr. Francis E. Low, "Theory of Low Energy Meson Scattering and Production."

Feb. 17  John W. Kauffman, "Quenching Lattice Vacancies in High Purity Gold."


Mar. 3   No colloquium

Mar. 10  Prof. J. H. Bartlett, "The Helium Wave Function."

Mar. 17  Dr. D. H. Wilkinson, Brookhaven National Laboratory, "The Giant Resonances of Nuclear Photo Disintegration."


Mar. 31  Mark Q. Barton, "The Nuclear Photo-effect at High Energies."


April 21 Professor J. M. Luttinger, University of Michigan, Ann Arbor, Michigan, "Impurity States in Semi-Conductors."

April 25 Professor Theodore Foerster, University of Göttingen, Germany, "Transmutations of Organic Molecule in their Excited Electronic States."

May 5   Dr. Walter M. Elsasser, University of Utah, Salt Lake City, Utah, "Hydromagnetism."

May 12  Dr. George Salzman, "Structure of the Nucleon."
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</tr>
<tr>
<td>Oct. 15</td>
<td>David S. Lieberman</td>
<td>&quot;Diffusionless Phase Transitions in Crystalline Solids—Transformation Crystallography&quot;</td>
</tr>
<tr>
<td>Oct. 22</td>
<td>T.A. Reed</td>
<td>&quot;Diffusionless Phase Transitions in Crystalline Solids—Effects of Stress and Temperature History&quot;</td>
</tr>
<tr>
<td>Nov. 5</td>
<td>Werner Kanzig</td>
<td>&quot;The Generation of Electron Traps by Plastic Flow.&quot;</td>
</tr>
<tr>
<td>Nov. 19</td>
<td>Arnold H. Kahn</td>
<td>&quot;Spin Resonance of F-Centers&quot;</td>
</tr>
<tr>
<td>Dec. 3</td>
<td>R. N. Hall</td>
<td>G.E. Research Laboratory, title not known.</td>
</tr>
<tr>
<td>Dec. 10</td>
<td>Peter Haasen</td>
<td>University of Chicago, &quot;The Formation of Slip Bands During Plastic Deformation.&quot;</td>
</tr>
<tr>
<td>Jan. 7</td>
<td>David Dexter</td>
<td>University of Rochester</td>
</tr>
<tr>
<td>Jan. 14</td>
<td>R. J. Maurer</td>
<td>&quot;Ionic Mobility in the Alkali Halides.&quot;</td>
</tr>
<tr>
<td>Jan. 20</td>
<td>Professor F. Stöckmann</td>
<td>Purdue University, &quot;Semi-conducting and photo-conducting properties of Zinc Oxide.&quot;</td>
</tr>
<tr>
<td>Feb. 17</td>
<td>David Lazarus</td>
<td>&quot;Self-Diffusion in Dilute Solid Solutions.&quot;</td>
</tr>
<tr>
<td>Feb. 25</td>
<td>Dr. T. O. Woodruff</td>
<td>&quot;Calculation of Energy Band Structure of Silicon.&quot;</td>
</tr>
<tr>
<td>Mar. 4</td>
<td>T. S. Noggle</td>
<td>&quot;Electron Microscopy Studies of the Deformation of Aluminum.&quot;</td>
</tr>
</tbody>
</table>
Mar. 11  Dr. John Bardeen, "Theory of Meissner Effect."
Mar. 25  Nicholas Inchauspe, "Photoconductivity in KI."
April 1  Prof. Fred Reitz, Institute for the Study of Metals, "Magnetic Resonance Studies of Impure Ionic Crystals."
April 15 Dr. J. K. Gelt, Bell Telephone Labs., "Losses in Ferrites."
April 22 John Gibson, Iowa State College, Ames, Iowa, "Thermally Induced s to d Transitions in Nickel."
May 13  A. B. Kuper, "Self-Diffusion in Ordered and Disordered CuZn."
Physics Department Committees
1954-1955
(first named is chairman)

**Advisory (chairman to be elected)**

- Hulsizer, R.I.
- Slichter, C.P.
- Goldwasser, E.L.
- Nordsieck, A.T.

**Assts. and Fellows**

- Almy, G.M.
- Hanson, A.O.
- Mapother, D.E.
- Paton, R.F.
- Robinson, C.S.

**Building and Power**

- Maurer, R.J.
- Rawcliffe, R.D.
- Ascoli, G.
- Flora, R.F.

**Graduate Studies and Exams**

- Almy, G.M.
- Axel, P.
- Snyder, J.N.
- Maurer, R.J.
- Chew, G.F.

**Undergraduate Studies**

- Slichter, C.P.
- Becker, R.A.
- Lyman, E.M.
- Paton, R.F.
- Hanson, A.O.

**Engineering Physics**

- Lyman, E.M.
- Slichter, C.P.

**LAS Physics and Teacher Training**

- Paton, R.F.

**Colloquium**

- Chew, G.F.
- Kerst, D.W.
- Seitz, F.

**Seminars**

- Betatron: Koester, L.J.
- Solids: Machlup, S.
- Theory: Low, F.E.

**Foreign Language**

- Bartlett, J.H.
- Low, F.E.

**Library**

- Chew, G.F.
- Hill, R.D.
- Bartlett, J.H.
- Koehler, J.S.
- Low, F.E.

**Schedules**

- Paton, R.F.
- Salzmann, G.

**Placement**

- Slichter, C.P.

**Physics Club and Open House**

- Smith, J.H.
- Lavatelli, L.S.

**Social**

- Lavatelli, L.S.
- Hill, R.D.
- Duffield, R.B.

**Computing Service**

- Snyder, J.N.

**Machine Shops and Drafting**

- Mapother, D.E.
- Allen, J.S.
- Flora, R.F.

**Electronics Shop**

- Axel, P.

**Chemistry Laboratory**

- Frauenfelder, H.

**Radioactive Records and Protection**

- Jentschke, W.K.
- Tomizuka, C.T.

**Projection for Colloquium**

- Harber, R.A. and new assistants
UNIVERSITY OF ILLINOIS
COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Abrahams, Elihu
Highest Degree: Ph.D.

Academic Rank: Research Associate
Admin. Title:

Time devoted to University work according to official appointment:  X Full Time;  3/4;  2/3;  1/2;  1/3;  1/4;  Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as ______ percent of full load in the fall semester and ______ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 100 percent of a full load in the fall semester and 100 percent in the spring semester. Major projects and areas of specialization are:

Theoretical Solid State Physics.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities: American Physical Society


Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Completed: Electron-Electron Scattering in Alkalai Metals
Spin-wave - conduction electron interaction in ferromagnetic metals.

In progress: Exciton energy levels in crystals.

Publications—Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


Addresses—Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Allen, James S. 
Highest Degree: Ph.D.

Academic Rank: Professor
Admin. Title: 

Time devoted to University work according to official appointment: ___Full Time; ___3/4; ___2/3; ___1/2; ___1/3; ___1/4; ___Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as ___100 percent of full load in the fall semester and ___100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ___ percent of a full load in the fall semester and ___ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ___ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Machine Shops and Drafting
College: Student English
University: 

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society (Fellow)
Sigma Xi

Attendance at meetings of technical societies:

American Physical Society, Chicago, November 1954.

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

In Progress—The Electron Neutrino Angular Correlation in the Decay of Argon. (with D.R. Maxson)

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Electron-Neutrino Angular Correlation in the Beta Decay of Neon¹⁹.

Addresses — Title, organization addressed, and date:


"Electron Neutrino Angular Correlation in the Decay of Neon ¹⁹." Physics Department Colloquium, Indiana University, Jan.12, 1955.

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
Consultant to LosAlamos Scientific Laboratory, June 15-Sept.1, 1954.
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME Almy, Gerald M. Highest Degree Ph.D.

Academic Rank Professor Admin. Title Associate Head

Time devoted to University work according to official appointment: Full Time; ½; ½; ½; ½; Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 50 percent of full load in the fall semester and 50 percent in the spring semester. (Department secretary may fill in this information.) (50% administration)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as percent of a full load in the fall semester and percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of 40 clock hours per week. The principal time-consuming duties are:

Departmental administration
University committees.

MEMBERSHIP ON COMMITTEES:

Department: Assistants and Fellows, Chairman
Graduate Studies and Exams, Chairman

College:

University: Honorary Degrees, Chairman
Research Board Com. on Patents, Chairman

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society

Attendance at meetings of technical societies:

American Physical Society: Chicago, November 1954

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Talk to Student Senate Leadership Forum, Nov. 30, 1954.

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME  Ascoli, Giulio
Highest Degree  Ph.D.

Academic Rank  Assistant Professor
Admin. Title

Time devoted to University work according to official appointment:  Full Time;  3/4;  2/3;  1/2;  1/3;  1/4;  Time.

TEACHING:  Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH:  Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES:  University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:
Department:  Building and Power
College:
University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities: American Physical Society

Attendance at meetings of technical societies:

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Cosmic Ray Research.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Axel, Peter

Highest Degree: Ph.D.

Academic Rank: Assistant Professor

Time devoted to University work according to official appointment: Full Time; ¾; ½; ¼; Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Graduate Studies and Exams
Electronics Shop

College: High School Relations

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

Attendance at meetings of technical societies:

Seattle, Washington  July 7-10 1954
Chicago, Illinois  Nov. 26-27
New York, N.Y.  Jan 27-29 1955
Washington, D.C.  April 28-30 1955

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Miscellaneous experiments on Photomultiplier Effect and Radio activity

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

with J. D. Fox and R. H. Parker
Identification of Mo\(^{91}\) and Mo\(^{91}M\), Physical Review \(97\), 975-7, 1955

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:

Brookhaven National Laboratory
Consultant from August 16—September 12 1954
UNIVERSITY OF ILLINOIS
COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Bardeen, John
Highest Degree: John

Academic Rank: Professor
Admin. Title:

Time devoted to University work according to official appointment: Full Time; %, %, x %; %, %, %, Time.

TEACHING:
Teaching program for the current academic year was reported to the Bureau of Institutional Research as % percent of full load in the fall semester and % percent in the spring semester. (Department secretary may fill in this information.) (50% appointment in Elec. Eng. Dept.)

RESEARCH:
Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as percent of a full load in the fall semester and percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES:
University duties not directly credited to teaching and research occupy an average of clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
Council — American Physical Society
Amer. Phys. Soc. — Div. Solid State Physics, Chairman
Amer. Phys. Soc. — Buckley Prize Committee, Chairman
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities: Sigma Xi; Tau Beta Pi; American Physical Society, National Academy of Sciences, American Association for the Advancement of Science.

Attendance at meetings of technical societies:

National Academy of Science, April 1955.

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

1. Theory of superconductivity: boundary energies, electron-phonon interactions (with D. Pines); theory of Meissner effect.
2. Semiconductors: surface conductance (with S.R. Morrison (EE); absorption spectrum (with L.H. Hall and F.J. Blatt); effect of surface conditions on characteristics of rectifier junctions (N. Holonyak, EE); theory of conductance in surface barriers (with J.R. Schrieffer, D. Mattis, F. Ham); Diffusion studies (with H. Letaw, Jr. and others (EE)).

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

See attached list.

Addresses — Title, organization addressed, and date:


Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Have entertained students at home, and have had informal conferences on a number of occasions.

Other professional activities, including summer work:

Visited Europe, summer of 1954, to attend International Conference on Semiconductors at Amsterdam, and visit various European laboratories.
1954-55 publications.

**Books**


**Articles**


RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Bartlett, James H.  
Highest Degree: Ph.D.

Academic Rank: Professor  
Admin. Title: 

Time devoted to University work according to official appointment:  
Full Time; ¾; ½; ¼; — Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Foreign Language Library

College: Library

Technical Societies and Advisory Groups:

Fellow American Physical Society
Member Electrochemical Society
Member Marine Biological Laboratory (Woods Hole, Mass)
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

- Fellow American Physical Society
- Member Electrochemical Society
- Marine Biological Laboratory (Woods Hole, Mass)

Attendance at meetings of technical societies:

American Physical Society
- Chicago Nov 1954
- New York Jan 1955
- Washington April 1955

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

1. Helium Wave Equation (with M. Girardeau, C. Robinson, D. Wilby, Y. Hirose)
2. Anodic Behavior of Metals (with R.S. Cooper, R. Solomon, J. Briggs)
3. Electropolishing of Copper (with F.H. Giles)

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Combined Pairs of Vacancies in Copper. (with G.J. Dienes) Phys. Rev. 89, 848-850 (1953). (Not previously reported)


Addresses — Title, organization addressed, and date:


Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:

Research at Woods Hole, 1954. (June-Sept)
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Becker, Robert A.                      Highest Degree: Ph.D.

Academic Rank: Associate Professor          Admin. Title: 

Time devoted to University work according to official appointment: 1 X Full Time; 3/4; 2/3; 1/2; 1/3; 1/4; Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of 15 clock hours per week. The principal time-consuming duties are: Research not included in the above.

MEMBERSHIP ON COMMITTEES:

Department: Undergraduate Studies

College: 

University: 

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:
Sigma Xi
American Institute of Physics
American Physical Society (Fellow)

Attendance at meetings of technical societies:
American Physical Society; Chicago, November 1954.
Washington, D.C., April 1955

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:
Supervised thesis of H.N. Brown, entitled "Radiations from Ho$_{164}$."
In Progress Study of Disintegration Scheme of Mo$_{91}$.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
Research at Betatron Laboratory, this campus, June 16 to Aug. 15, 1954.
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Bernardini, Gilberto

Highest Degree: Ph.D.

Academic Rank: Research Professor

Teaching program for the current academic year was reported to the Bureau of Institutional Research as 30 percent of full load in the fall semester and 50 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 70 percent of a full load in the fall semester and 50 percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ___ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

Accademia Nazionale Lincei
Accademia Scienze Bologna
American Physical Society (Fellow)

Attendance at meetings of technical societies:

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Photoproduction in Helium
Scattering of high energy photons on nucleons
Photoproduction in Deuterium and hydrogen.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Photopionic S-wave Near Threshold and the Pion Nucleon Coupling Constant. (with E.L. Goldwasser) Phys. Rev. 95, 857-858(L), (1954).

The \( \pi^+ \) Ratio from Deuterium Near Photopion Threshold. (with E.L. Goldwasser) Nuovo Cimento 12, 156-159 (1954).

Addresses— Neutral and Charged Photopions from Hydrogen at Low Energies.
Works in Progress at the Betatron Laboratory. Columbia University, April 1955.

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
NAME: Blatt, Frank J.                                      Highest Degree: Ph.D.

Academic Rank: Research Associate (I Sem.) Admin. Title:
(Res. Assoc. and Instructor (II Sem.)
Time devoted to University work according to official appointment:  X Full Time;  3/4;  1/2;  1/4;  Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as  0 percent of full load in the fall semester and  33 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as  100 percent of a full load in the fall semester and  67 percent in the spring semester. Major projects and areas of specialization are:

Theory of Solids

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

- American Physical Society
- American Institute of Physics

Attendance at meetings of technical societies:

- American Physical Society: Chicago, Nov. 26, 1954
  New York, Jan. 27, 1955
  Baltimore, March 17, 1955.

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:


**In Progress:** Effect of Stacking Faults on Resistivity in Copper.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


Addresses — Title, organization addressed, and date:


Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Chew, Geoffrey F. Highest Degree: Ph.D.

Academic Rank: Associate Professor Admin. Title: 

Time devoted to University work according to official appointment: ☑ Full Time; ☑ 3/4; ☑ 1/2; ☑ 1/3; ☑ 1/4; ☑ Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

High energy theoretical nuclear physics
Meson physics.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

Activities as Chairman of Physics Colloquium and Physics Library Committee.

MEMBERSHIP ON COMMITTEES:

Department: Graduate Studies and Exams
Physics Colloquium, Chairman
Physics Library, Chairman

College:

University:

Technical Societies and Advisory Groups:

Passport Committee - Federation of American Scientists, Chairman
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society, Fellow

Attendance at meetings of technical societies:

American Physical Society, Chicago, Nov. 1954

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Research Completed

Theory of P-wave Pion Nucleon Interaction at Low Energies (with F.E. Low)
Theory of Photo-Meson Production. (with F.E. Low)
Supervision of Thesis by S. Gardenhaus, entitled Meson Theory of Nuclear Forces.
Supervision of thesis by D.B. Lichtenberg, entitled Meson Production in Nucleon-Nucleon Collisions.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


Addresses — Title, organization addressed, and date:


Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Faculty Adviser to Student Committee on Discrimination and Academic Freedom.

Other professional activities, including summer work:

Summer of 1954 spent as consultant at Univ. of California Radiation Lab., Berkeley and Livermore.
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Cole, Francis T.                                                                 (Highest Degree: Ph.D.)

Academic Rank: Research Assistant Professor

Time devoted to University work according to official appointment: ______ Full Time; ______ 3/4; ______ 2/3; ______ 1/2; ______ 1/3; ______ 1/4; ______ Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as ______ percent of full load in the fall semester and ______ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities: Physical Society, Sigma Xi

Attendance at meetings of technical societies:

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Working together with D. W. Kunt on accelerator design problems for Midwest Universities Research Association

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
UNIVERSITY OF ILLINOIS
COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME Duffield, Robert B. Highest Degree Ph.D.

Academic Rank Associate Professor of Physics Admin. Title

Time devoted to University work according to official appointment: — Full Time; — ¾; — ¾; x ½; — ⅜; — ¼; — Time. (Also ½-time aptmt. in Chemistry Dept.)

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as percent of full load in the fall semester and percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 50 percent of a full load in the fall semester and 50 percent in the spring semester. Major projects and areas of specialization are:

Photonuclear work with the University of Illinois betatron.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Social

College:

University: Research Board—Radiation Hazards, Chairman

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society
American Chemical Society

Attendance at meetings of technical societies:

Nuclear research conference, Oak Ridge Natl. Lab., Oct. 1954

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Research on photofission.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


Addresses — Title, organization addressed, and date:

Informal talks at research seminars in nuclear physics, University of Zürich, ETH in Zürich, Switz., and at University of Illinois.
Also at Brookhaven National Laboratory.

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Frauenfelder, Hans

Highest Degree: Ph.D.

Research Assistant Professor and
Academic Rank: Assistant Professor

Admin. Title:

Time devoted to University work according to official appointment: X Full Time; — 3/4; — 2/3; — 1/2; — 1/6; — 1/4; — Time.

TEACHING:
Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH:
Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

Angular correlation of nuclear radiations.
Study of energy levels.
Investigation of some properties of solids and liquids by means of nuclear angular correlation.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Chemistry Laboratory

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society
Swiss Physical Society

Attendance at meetings of technical societies:

American Physical Society: Chicago, November 1954
Washington, D.C., April 1955

Gordon Research Conference on Nuclear Chemistry.

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

In Progress:

Alpha-Gamma correlation in Po

Investigation of nuclear angular correlation in superconductors; during melting; in semiconductors.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


Addresses — Title, organization addressed, and date:

"Recent Developments in Angular Correlation" Physics Colloquium, Princeton University, May 20, 1954.

"Angular Correlation" Gordon Research Conference, July 1, 1954

"Angular Correlation" Physics Colloquium, State University of Iowa, Feb. 15, 1955.

"Angular Correlation, a Link Between Nuclear and Solid State Physics" Iowa State College, Feb. 16, 1955

"Progress in the Field of Angular Correlation" Physics Colloquium, University of Chicago, Feb. 24, 1955


Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Goldwasser, Edwin L. Highest Degree: Ph.D.
Research Assistant Professor and
Academic Rank: Assistant Professor

Time devoted to University work according to official appointment: Full Time; 3/4; 2/3; 1/2; 1/6; 1/4; Time.

TEACHING:
Teaching program for the current academic year was reported to the Bureau of Institutional Research as 33 1/3 percent of full load in the fall semester and 33 1/3 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH:
Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 66 2/3 percent of a full load in the fall semester and 66 2/3 percent in the spring semester. Major projects and areas of specialization are:

Photodisintegration of Helium; Photomeson Production in Hydrogen and Helium

OTHER DUTIES:
University duties not directly credited to teaching and research occupy an average of _______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Department Advisory

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society
Sigma Xi

Attendance at meetings of technical societies:

American Physical Society:  Chicago, November 1954
                           New York, January 1955
                           Washington, April 1955.

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

See attached sheet.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

See attached sheet.

Addresses — Title, organization addressed, and date:

Energy Loss of Fast Charged Particles.  Univ. of Rochester Physics Col­
locouium.

Elastic Photoproduction of $\pi^0$ Mesons From Helium.  American Physical Society, Chicago, November 1954.

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
Research

Completed - A direct measurement of the effect of polarization on energy loss. The theoretical predictions for this effect were verified.

Supervision of Ph.D. thesis by V.O. Nicolai, entitled "Cloud Chamber Studies of Photonuclear Reactions Above and Below The Meson Threshold".

In Progress - Analysis of data obtained for a study of the photoproduction of \( \pi^+ \) mesons near threshold. (with G. Bernardini)

Analyzing data designed to investigate the elastic photoproduction of \( \pi^- \) mesons near threshold. (with L.J. Koester)

Investigating the photodisintegration of helium at energies between the giant resonance and the meson threshold and to shed light on the elastic photoproduction of \( \pi^0 \) mesons from helium at high energies. (with I. Filosofo)

Publications

- Photopion S-wave Near Threshold and the Pion Nucleon Coupling Constant. (with G. Bernardini) Phys.Rev. 25, 857-858(L), (1954).


- The \( \pi^-/\pi^+ \) Ratio from Deuterium Near Photo-Pion Threshold. (with G. Bernardini) Nuovo-Cimento 12, 156-159L(1954).
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Hanson, Alfred O. Highest Degree: Ph.D.

Academic Rank: Professor

Time devoted to University work according to official appointment: Full Time; ¾; ½; ⅓; ⅛; Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

High energy photonuclear reactions.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of 1 clock hours per week. The principal time-consuming duties are:

For service on the committees listed below.

MEMBERSHIP ON COMMITTEES:

Department: Assistants and Fellows Undergraduate Studies

College: Student Records and Petitions

University:

Technical Societies and Advisory Groups:

Associate Editor, Review of Scientific Instruments.
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society
Sigma Xi

Attendance at meetings of technical societies:

American Physical Society: Chicago, November 26-7, 1954

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Completed- Supervised theses by Lew Allen and E.A. Whalin on the photo-disintegration of deuterium.

In progress- Supervising thesis by Barbara Dwight Schriever and preparing for publication data on higher energy research.

Scattering of x-rays by hydrogen (with T. Yamagata, G. Bernardini and L.B. Auerbach)

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


Addresses — Title, organization addressed, and date:


Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Hill, Robert D.                                      Highest Degree: Ph.D.

Academic Rank: Associate Professor  Admin. Title: 

Time devoted to University work according to official appointment: X Full Time; ¾; ¾; ½; 1/2; 1/4; Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Physics Library
Social

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society (Fellow)
Sigma Xi

Attendance at meetings of technical societies:

American Physical Society: Chicago, November 1954
New York, Jan. 1955

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

In progress Investigation of production and properties of K-particles.
Nuclear alignment of radioactive nuclei at low temperatures.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

K-Particle Production by Protons of 2.2 and 3.0 Bev" (with E.O. Salant, and M. Widgoff) Phys.Rev. 94, 1794(L), (1954).

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:

During summer of 1954, research investigations at Brookhaven National Lab.
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Hodes, Isidore

Highest Degree: Ph.D.

Academic Rank: Research Associate

Time devoted to University work according to official appointment: Full Time; \(\frac{3}{4}\); \(\frac{1}{2}\); \(\frac{1}{4}\); __ Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as _____ percent of full load in the fall semester and _____ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as _____ percent of a full load in the fall semester and _____ percent in the spring semester. Major projects and areas of specialization are:

Theory of mesons and nucleons.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of _____ clock hours per week. The principal time-consuming duties are:

none

MEMBERSHIP ON COMMITTEES:

Department: none

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

Attendance at meetings of technical societies:
New York Meeting, American Physical Society.

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

In progress; Theoretical study of photodisintegration of the deuteron.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Hulsizer, Robert I.  Highest Degree: Ph.D.

Academic Rank: Associate Professor; Research Associate Professor

Admin. Title: I Sem. 
II Sem.

Time devoted to University work according to official appointment: ___________________ Full Time; ___________________ ¾ Time; ___________________ ⅓ Time; ___________________ ¼ Time. (Also ⅓-time in Control Systems Lab. during I Sem. and 2/3-time in Control Systems Lab. during II Sem.)

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as _______ percent of full load in the fall semester and _______ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as _______ percent of a full load in the fall semester and _______ percent in the spring semester. Major projects and areas of specialization are:

Research on the nature of elementary particles produced in nuclear collisions between cosmic rays and nuclei of silver-bromide emulsions. Emulsions have been exposed at high altitude and developed. They are now being examined for appropriate nuclear events.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of _______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Advisory Committee

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society (Fellow)
Sigma Xi

Attendance at meetings of technical societies:

American Physical Society, Chicago, November 1954.
Midwest Cosmic Ray Colloquium at University of Chicago, January 1955.

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

See under "Research" on other side for unclassified work.

I am also doing research in classified subjects for the Defense Department at the Control Systems Laboratory.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

No unclassified reports. See Control Systems Laboratory library for classified reports.

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Faculty adviser for Christian Science organization at the University.

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Jentschke, Willibald K.                      Highest Degree: Ph.D.

Academic Rank: Research Associate

Admin. Title: Professor

Time devoted to University work according to official appointment: □ Full Time; □ ¾; □ ½; □ ¼; □ ⅛; □ ⅛; □ Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 75 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as _____ percent of a full load in the fall semester and 25 percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of _______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Radioactive Records and Protection

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society (Fellow)

Attendance at meetings of technical societies:


Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

**Completed:** Response of scintillation crystals.

The (d,p) stripping theory of Butler was employed in the interpretation of the angular distribution of protons from the reaction $\text{Zn}^{68}(d,p)\text{Zn}^{69}$.

An investigation in the neighborhood of the double closed shell nucleus $\text{Pb}^{208}$ established the occurrence of an α-isomeric state with the highest spin known for any excited nucleus state.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


Electron-Neutrino Angular Correlation in the Beta Decay of Neon $^{19}$.


Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Kahn, Arnold

Highest Degree: Ph.D.

Academic Rank: Research Associate & Instructor

Time devoted to University work according to official appointment: __ Full Time; ____ 3/4; ____ 3/8; ____ 1/2; ____ 1/8; ____ 1/4; ____ Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as __33 1/3__ percent of full load in the fall semester and __33 1/3__ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as __66 2/3__ percent of a full load in the fall semester and __66 2/3__ percent in the spring semester. Major projects and areas of specialization are:

RADIATION DAMAGE, X-RAY EFFECTS

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of _______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting: PH.D., UNIV. OF CALIFORNIA,  BERKELEY

Membership in technical societies and fraternities:
AMERICAN PHYSICAL SOCIETY
SIGMA XI

Attendance at meetings of technical societies:
AM. PHYS. SOC.  CHICAGO, BALTIMORE, NEW YORK

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

X-RAY INVESTIGATION (THEORETICAL) FOR RADIATION DAMAGE—IN PROGRESS.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

THEORY OF THE INFRARED ABSORPTION OF CARRIERS IN GERMANIUM AND SILICON, PHYS. REV. 97 1647 (1955)

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Känzig, Werner

Highest Degree: Ph.D.

Academic Rank: Research Assistant Professor

Research Assistant Professor

Time devoted to University work according to official appointment: X Full Time; 3/4; 1/2; 1/4; 1/8; Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as ______ percent of full load in the fall semester and ______ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 100 percent of a full load in the fall semester and 100 percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ________ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

- American Physical Society
- Swiss Physical Society

Attendance at meetings of technical societies:

- APS Meeting at Chicago November 26 - 27 1954
- APS Meeting at New York January 27 - 29 1955
- National Symposium on Ferroelectricity January 26, Ft. Monmouth

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

- Generation of Electron Traps by Plastic Deformation (completed).
- Electron Spin Resonance Experiments on Ionized U-Centers (in progress).

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

- with M. Ueta: Effect of Plastic Flow upon Color Centers, Phys. Rev. 94 (Letter) p. 1390, June 54
- Space Charge Layer near the Surface of a Ferroelectric, Phys. Rev. 98 (Letter) p. ? April 1955

Addresses — Title, organization addressed, and date:

- Properties of very small Ferroelectric Particles, Rutgers Univ. 5-15-54
- Ferroelectricity and Antiferroelectricity, RCA Lab., Princeton 5-17-54
- Generation of Electron Traps by Plastic Flow, APS Meeting, Chicago 11-27-54
- Ferroelectricity and Antiferroelectricity, Case Institute, Cleveland 4-19-55
- Surface Properties of Ferroelectric Crystals, National Symposium on Ferroelectricity, Fort Monmouth 1-26-1955

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Kerst, Donald W.  Highest Degree: Ph.D.

Academic Rank: Professor  Admin. Title: 

Time devoted to University work according to official appointment:  \( \frac{x}{1} \) Full Time; \( \frac{3}{4} \); \( \frac{1}{2} \); \( \frac{1}{2} \); \( \frac{1}{4} \); Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as \( \frac{100}{100} \) percent of full load in the fall semester and \( \frac{100}{100} \) percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as \( \frac{100}{100} \) percent of a full load in the fall semester and \( \frac{100}{100} \) percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of \( \frac{100\%}{100\%} \) clock hours per week. The principal time-consuming duties are:

Director of Technical Group of the Midwestern Universities Research Association.

MEMBERSHIP ON COMMITTEES:

Department: Physics Colloquium

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:
National Academy of Science
American Physical Society
Sigma Xi
Phi Kappa Phi

Attendance at meetings of technical societies:
Photonuclear Conference-Philadelphia, Pennsylvania May 7, 1954
Physical Society-Washington, May 1, 1954
National Academy of Science Meetings-May 3, 1954
Physical Society Meeting in Chicago-November, 1954
Physical Society Meeting in New York-January, 1955

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Work continued with the Midwestern Universities Research Association and the Flux-field alternating gradient machine.

Publications—Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

See attached sheet.

Addresses—Title, organization addressed, and date:

See attached sheet.

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Normal amount

Other professional activities, including summer work:

Director of Technical Group of the Midwestern Universities Research Association
PUBLICATIONS - D. W. Kerst (May 1, 1954 - April 30, 1955)


MIDWESTERN UNIVERSITIES RESEARCH ASSOCIATION REPORTS

1. An Estimate of Effects of Non-Linear Restoring Forces for Avoiding Resonances.


4. Approximate Calculation of Non-Linear Lock-In at $\pi$.

5. Characteristics of Non-Linear Lock-in caused by Field Inhomogeneity.


7. A Fixed-Field-Alternating Gradient Accelerator with Spirally Ridged Poles, (With Terwilliger, Jones, Symon).

8. High Energy FFAG Ring Magnets with Spirally Ridged Field.


11. Constant Frequency Cyclotrons with Spirally Ridged Fields.
Addresses given by D. W. Kerst.


Non-linear Theory of Alternating Gradient Accelerator—Colloquium at Los Alamos Laboratory, Sept. 9, 1954.

High Energy Accelerator for the Midwest—Colloquium at Northwestern University, October 6, 1954.

Multibillion Volts Accelerator for the Midwest—Colloquium at Ann Arbor, Michigan, October 20, 1954.


Multibillion volts accelerator for the Midwest—Colloquium at Bloomington, Indiana, December 1, 1954.


Fixed Field Alternating Gradient Accelerator, Seminar at Ohio State University, Columbus, Ohio, March 8, 1955.

Fixed Field Alternating Gradient Accelerator, Colloquium at Oak Ridge, Tennessee, March 9, 1955.
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Koehler, James S.                                      Highest Degree: Ph.D.

Academic Rank: Professor                                      Admin. Title:

Time devoted to University work according to official appointment: — Full Time; — 3/4; — 2/3; — 1/2; — 1/3; — 1/4; — Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 50 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 50 percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Physics Library

College: Social (II Sem.)

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society

Attendance at meetings of technical societies:


Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Thesis by H.G. Cooper, "The Irradiation of Copper Silver and Gold with Deuterone at 10°K.

In Progress: Thesis by J.W. Kauffman, "The Quenching in of Lattice Vacancies in Gold"
Thesis by T.S. Noggle, "Electron Microscopy of Aluminum Deformed at Various Temperatures"

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
Consultation - Oak Ridge Natl. Laboratory, 2 weeks.
Research at Univ. of Illinois, 2 months.
UNIVERSITY OF ILLINOIS

COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Koester, Louis J., Jr. Highest Degree: Ph.D.

Academic Rank: Research Associate

Admin. Title: 

Time devoted to University work according to official appointment: Full Time; ¾; ½; ⅓; ¼; Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as percent of full load in the fall semester and percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 100 percent of a full load in the fall semester and 100 percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Betatron Seminars

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society
Sigma Xi

Attendance at meetings of technical societies:

American Physical Society: Chicago, November 26-27, 1954

Midwest Cosmic Ray Conference, Chicago, March 5, 1955.

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

**Completed**—Supervised Ph.D. thesis of F.E. Mills, entitled "Photo Production of Neutral Mesons from Hydrogen".

**In Progress**—Photoproduction of \( \pi^0 \) Mesons in Hydrogen: Total and Differential Cross Sections.

Photoproduction of \( \pi^0 \) Mesons in Helium, Especially the case in which the helium nucleus is not disintegrated.

Publications—Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

- Low Energy Photoproduction of \( \pi^0 \) Mesons from Hydrogen: Total Cross Section. (with F.E. Mills) Phys.Rev. 98, 210-211(L), (1955).

Addresses—Title, organization addressed, and date:


Photoproduction of \( \pi^0 \) Mesons in Hydrogen: Comparison of Theory with Expt. Midwest Cosmic Ray Conference, Chicago, March 5, 1955.


Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Kruger, P. Gerald

Highest Degree: Ph.D.

Academic Rank: Research Professor

Admin. Title: in Control Systems Laboratory

Time devoted to University work according to official appointment:  
- Full Time: x
- 3/4: 
- 2/3: 
- 1/2: 
- 1/4: 
- 1/5: 

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as percent of full load in the fall semester and percent in the spring semester. (Department secretary may fill in this information.) None.

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as percent of a full load in the fall semester and percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of clock hours per week. The principal time-consuming duties are: None.

MEMBERSHIP ON COMMITTEES:

Department: Executive Committee, Control Systems Laboratory

College: Nuclear Engineering

University: None

Technical Societies and Advisory Groups: None
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

None

Membership in technical societies and fraternities:

American Physical Society
American Association of Physics Teachers
Phi Kappa Phi
Sigma Xi

Attendance at meetings of technical societies:

American Physical Society, November 25, 26, 27 in Chicago (1954)
American Physical Society, January 26, 27, 28 in New York (1955)
American Physical Society, April 28, 29, 30 in Washington, D. C. (1955)

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Research completed:
"Boron Uptake in Mouse-Brain Neoplasm"

Research in progress:
Preparation of Boron Containing Organic Compounds for Use in Study of Uptake of Such Compounds by Neoplasms (with Professor H. Snyder, Chemistry Department)

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:
Proton-Proton Scattering at 5.77 Mev. (with Zimmerman, Kerman, Sidney Singer and Jentschke) Phys. Rev. 96, 1322 (1954).

One classified document resulting from work done in the Control Systems Laboratory during 1954

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
President, Board of Directors, Midwestern Universities Research Association
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Lavatelli, Leo S.                                      Highest Degree: Ph.D.

Academic Rank: Research Assistant Professor                 Admin. Title: ____________________________

Time devoted to University work according to official appointment: 

- Full Time: ___
- ⅞: ___
- ⅜: ___
- ⅛: ___
- ⅛: ___. Time. (50% in Physics and 50% in Control Systems Lab.)

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as ______ percent of full load in the fall semester and ______ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are: in Physics Department.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

50% classified research in Control Systems Laboratory

MEMBERSHIP ON COMMITTEES:

Department: Social Physics Club and Open House

College:

University:

Technical Societies and Advisory Groups:
**PROFESSIONAL ACTIVITIES:**

New degree, and name of institution granting:

Membership in technical societies and fraternities:

Attendance at meetings of technical societies:

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
UNIVERSITY OF ILLINOIS
COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Lazarus, David
Highest Degree: Ph.D.

Academic Rank: Research Assistant Professor
Admin. Title:

Time devoted to University work according to official appointment: x Full Time; 3/4; 1/2; 1/3; 1/4; Time.

(50% in Physics and 50% in Control Systems Lab.)

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 75 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as _______ percent of a full load in the fall semester and _______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of _______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College: Social (I Sem.)

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Soc.

Attendance at meetings of technical societies:

- Amer. Soc. Metals, Chicago, Oct. 154
- Amer. Phys. Soc., Chicago, Nov. 154
- """, Baltimore, March '55

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Completed - Self-Diffusion in Copper (A. Kuper et al.)
Self-Diffusion in Impure Silver (G. Sonder)
Self-Diffusion in Gold (B. Okkerse)
Impurity Diffusion in Silver (C. Tomizuka)

In Progress - Theory of Melting
Impurity Diffusion in Copper (C. Mackiet)
Diffusion in Beta Brass (A. Kuper)
Diffusion in Silver Alloys (A. Schoen, C. Tomizuka)

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

with C. Tomizuka — "Reproducibility of Diffusion Measurements"

Addresses — Title, organization addressed, and date:

"Impurities and Imperfections in Metallic Diffusion"
American Society for Metals, Chicago, October 1954

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:

Control Systems Lab
UNIVERSITY OF ILLINOIS

COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Longacre, Andrew

Research Professor in the

Control Systems Laboratory

Academic Rank: Research Professor

Highest Degree: Ph.D.

Time devoted to University work according to official appointment: X Full Time; _____ 3/4; _____ 3/4; _____ 1/2; _____ 1/2; _____ 1/4; _____ Time.

TEACHING:

Teaching program for the current academic year was reported to the Bureau of Institutional Research as ______ percent of full load in the fall semester and ______ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH:

Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 100 percent of a full load in the fall semester and 100 percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES:

University duties not directly credited to teaching and research occupy an average of _____ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Executive Committee, Control Systems Laboratory

College: Nuclear Engineering

University:

Technical Societies and Advisory Groups: Signal Corps Research and Development Advisory Council; Special Consultant to Commanding Generals of Cambridge Research Center and Rome Air Development Center; USAF Ballistic Missile Defense Committee; Steering Committee for "High Power Long Range" Project; Part-time member of Lamp Light Project.
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:
American Physical Society
American Association for the Advancement of Science
American Association of Physics Teachers
Science Masters Great Britain

Attendance at meetings of technical societies:

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:
Classified

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:
Classified

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
UNIVERSITY OF ILLINOIS
COLLEGE OF ENGINEERING — DEPARTMENT OF __Physics_____

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Loomis, F. Wheeler
Highest Degree: Ph.D.
Academic Rank: Professor
Admin. Title: Head of Physics Dept. and Director of Control Systems Laboratory

Time devoted to University work according to official appointment: ___ Full Time; ___ ¾; ___ ½; ___ Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as ______ percent of full load in the fall semester and ______ percent in the spring semester. (Department secretary may fill in this information.)

ADMINISTRATION: 100%

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

Administration duties as Head of the Physics Department and also as Director of the Control Systems Laboratory.

MEMBERSHIP ON COMMITTEES:

Department:

College: Executive Committee

University: Faculty Advisory

Technical Societies and Advisory Groups:

Amer. Phys. Soc.-- Long-Range Planning
APS-AIP-- Joint Com. on Publication Problems
Bul. Atomic Scientists--Board of Sponsors
Harvard Univ. Visiting--Physics
Lincoln Lab. Technical Advisory
Ballistic Res. Labs.--Scientific Advisory
Scientific Manpower Commission
Military-Industrial Conference
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities: American Physical Society (Fellow), Optical Society of America (Fellow), American Association for the Advancement of Science (Fellow), National Academy of Sciences, American Association of University Professors, American Association of Physics Teachers, Illinois Academy of Science.

Phi Beta Kappa; Sigma Xi; Chaos Club

Attendance at meetings of technical societies:

American Physical Society: Chicago, November 1954
New York, January 1955
Washington, D.C., April 1955

National Academy of Sciences, Washington, D.C., April 1955


Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:

UNIVERSITY OF ILLINOIS
COLLEGE OF ENGINEERING — DEPARTMENT OF _Physics_

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Low, Francis E. Highest Degree: Ph.D.

Academic Rank: Assistant Professor Admin. Title: 

Time devoted to University work according to official appointment: X Full Time; 3/4; 2/3; 1/2; 1/3; 1/4; Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Foreign Language Physics Library Theoretical Seminar

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society

Attendance at meetings of technical societies:

American Physical Society, New York, January 1955

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Theoretical investigations with Professor G.F. Chew:
Meson-nucleon scattering
Photo-meson production
Mobility of polarons (With Professor D. Pines)
Completed: Supervision of thesis by W.M. Moellering, entitles "The Effect of the Structure of the Proton on the Hyperfine Interaction in Hydrogen"

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Quantum Electrodynamics at Small Distances. (with M. Gell-Mann)
Phys. Rev. 95, 1300-1312 (1954).

Scattering of Light of Very Low Frequency by Systems of Spin \( \frac{1}{2} \).


Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
UNIVERSITY OF ILLINOIS
COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME Lyman, Ernest M. Professor of Physics and
Highest Degree Ph.D.

Academic Rank Res. Professor in C.S.L.

Time devoted to University work according to official appointment: \( \frac{x}{2} \) Full Time; \( \frac{\frac{1}{2}}{2} \); \( \frac{\frac{1}{2}}{2} \);

\( \frac{1}{2} \); \( \frac{1}{4} \); \( \frac{\text{Time}}{\text{Time}} \).

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as \( 50 \) percent of full load in the fall semester and \( 50 \) percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as \( 50 \) percent of a full load in the fall semester and \( 50 \) percent in the spring semester. Major projects and areas of specialization are:

Classified projects, C.S.L.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of \( 6 \) clock hours per week. The principal time-consuming duties are:

Engineering Physics Advisor
Graduate qualifying examinations
Teaching staff meetings

MEMBERSHIP ON COMMITTEES:

Department: Undergraduate Studies Engineering Physics

College: Scholarships

University:

Technical Societies and Advisory Groups:
American Physical Society
American Physics Teachers Association
Sigma Xi
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society
American Physics Teachers Association
Sigma Xi

Attendance at meetings of technical societies:

American Physical Society, Chicago, Illinois  November 1954

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:

Research, Control Systems Laboratory
UNIVERSITY OF ILLINOIS

COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1954, to April 30, 1955.

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME Machlup, Stefan

Highest Degree Ph.D.

Research Associate and Instructor Admin. Title

Time devoted to University work according to official appointment: — Full Time; —%; —%; —;

Res. Assoc. on full time I Sem.; and Res. Assoc. and —; —; — Time Instructor II Sem.

TEACHING:

Teaching program for the current academic year was reported to the Bureau of Institutional Research as 0 percent of full load in the fall semester and 33 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH:

Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 100 percent of a full load in the fall semester and 67 percent in the spring semester. Major projects and areas of specialization are:

Physics of the solid state

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ____ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:


College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society

Attendance at meetings of technical societies:

American Physical Society: Chicago, November 1954
New York, January 1955
Baltimore, March 1955.

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Completed: Relaxation around lattice vacancies.

In progress: Mechanism of self-diffusion in alkali metals.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Translation: H. Froehlich, "Elektronentheorie der Metalle", Chap. V. (limited distribution)

Relaxation of a Monatomic Crystal Lattice Around a Vacancy. (Abstract)

Addresses — Title, organization addressed, and date:

Relaxation of a Monatomic Crystal Lattice Around a Vacancy.
10 min. paper at American Physical Society meeting, Baltimore,
March 1955.

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
NAME: Mapother, Dillon E.                                   Highest Degree: Ph.D.
Academic Rank: Assistant Professor
Time devoted to University work according to official appointment:  X Full Time;  3/4;  1/2;  1/2;  3/4;  Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as percent of a full load in the fall semester and percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:
Department: Assistants and Fellows
            Machine Shops and Drafting
College:
University: ad hoc committee for Improving University Liquid Nitrogen Service. NOTE: I don't know whether this committee has any official standing but it has certainly consumed a lot of my time.

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society
American Association of Physics Teachers
Sigma Xi

Attendance at meetings of technical societies:

American Physical Society: Chicago, November 1954
Washington, D.C., April 1955

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Completed:
- Details of superconducting transition in pure aluminum (supervised thesis of J.F. Cochran)
- Effect of precipitation hardening on superconducting transition in aluminum. (Supervised thesis of R.E. Mould)
- Pressure effect in superconducting tin. (supervised thesis of Meyer Garber)
- Axial variation of the magnetic field in solenoids of finite thickness. (with J.N. Snyder)

Research in Progress:
- Pressure effect in superconducting lead. (supervising thesis of R.R. Hake)
- Precise measurement of transition curve for pure aluminum (with J.F. Cochran)
- Effect of precipitation hardening on the Debye temperature of aluminum (with J.R. Clement, Naval Res. Lab.)
- Investigation of the penetration layer in a superconductor (with J.F. Cochran, H. Frauenfelder, and co-workers).

Publications - See attached sheet.

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:

Consultant on cryogenics to Carbide and Carbon Chemical Co., at Oak Ridge National Laboratory since Sept. 1954.
Mapother, D.E. (Continued)
1954-1955

Publications:


No. 3 (with J.F. Cochran) The superconducting transition in pure aluminum.

No. 4 (with R.E. Mould) Superconductivity of a precipitation hardening alloy of aluminum.

No. 5* (with J.N. Snyder) The axial variation of the magnetic field in solenoids of finite thickness.

No. 6 (with M. Garber) The effect of pressure on the superconducting transition in tin.

*The material of this report has been produced in a slightly expanded version as Circular No. 66 of the University of Illinois Engineering Experiment Station.
UNIVERSITY OF ILLINOIS
COLLEGE OF ENGINEERING — DEPARTMENT OF __Physics______

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME  Maurer, Robert J. ____________________________ Highest Degree Ph.D. 

Academic Rank  Professor __________________________ Admin. Title ____________________________

Time devoted to University work according to official appointment:  X  Full Time;  ¾;  ⅔; ½;  ⅓; ⅓; ⅓ Time.

TEACHING:  Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH:  Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as _______ percent of a full load in the fall semester and _______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES:  University duties not directly credited to teaching and research occupy an average of _______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:
Building and Power
Graduate Studies and Exams

College:
Engineering Analysis Subcommittee

University:

Technical Societies and Advisory Groups:
Solid State Panel, Office of Naval Research, U. S. Navy
Solid State Physics, Office of Scientific Research, U. S. Air Force
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society, Fellow
Sigma Xi

Attendance at meetings of technical societies:
American Physical Society, Washington, April 28-30, 1955
American Physical Society, Baltimore, March 17-19, 1955
ASM Seminar, Chicago, October 30-31, 1954
Photoconductivity Conference, ONR, Atlantic City, November, 1954

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:
Diffusion and Conductivity in Silver Bromide (with A. Miller)
Diffusion and Conductivity in Silver Chloride (with W. Compton)
V Centers in KBr and KCl (with B. Houston)
Photoconductivity in KI (with N.I. Inchauspe)
Dielectric Loss in NaCl (with J.O. Thomson)
Diffusion in NaCl (with J.O. Thomson)

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:
(with K. Teegarden) V1 and H Centers in KCl, Zeits. f. Physik 138, 284-289, July 1954

Addresses — Title, organization addressed, and date:
Dielectrics and Ionic Crystals, ASM Seminar, Chicago, Oct 31, 1954
Imperfections in Ionic Crystals, DuPont Photoprocess Division, Parlin, N. J., November 1954
Imperfections in Ionic Crystals, Brookhaven National Laboratory, March 9, 1955

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual counseling with students, entertaining students in your home or elsewhere, etc.):
Consultant to Office of Naval Research
Consultant to Naval Ordnance Laboratory
Consultant to Graham Crowley Associates, Chicago

Other professional activities, including summer work:
UNIVERSITY OF ILLINOIS

COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Maxson, Donald R. Highest Degree: Ph.D.

Academic Rank: Research Associate Admin. Title:

Time devoted to University work according to official appointment: X Full Time; ¾; ½; ¼; Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as ______ percent of full load in the fall semester and ______ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

Experimental nuclear physics. Electron-neutrino angular correlation.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Ph.D. Physics, University of Illinois, June 1954.

Membership in technical societies and fraternities:

American Physical Society

Attendance at meetings of technical societies:

American Physical Society: Chicago, November 1954

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Completed: Ph.D. thesis entitled, Electron-neutrino Angular Correlation Experiment on Ne$^{19}$.

In Progress: A similar experiment involving A$^{35}$.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Electron-Neutrino Angular Correlation in the Beta Decay of Neon$^{19}$.

Addresses — Title, organization addressed, and date:

Electron-Neutrino Angular Correlation in the Beta Decay of Neon$^{19}$.
10 min. paper presented at American Physical Society meeting,
Chicago, November 1954.

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Newell, George S. Highest Degree: Ph.D.

Assistant Professor and

Res. Assistant Professor Admin. Title:

Time devoted to University work according to official appointment: — Full Time; —

% ; — ; — ; —

(One third in Physics and two-thirds in the

Control Systems Laboratory)

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 33 1/3 percent of full load in the fall semester and 33 1/3 percent in the spring semester. (Department secretary may fill in this information.) in physics department.

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 66 2/3 percent of a full load in the fall semester and 66 2/3 percent in the spring semester. Major projects and areas of specialization are: in the Control Systems Laboratory.

Classified research problems.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES: None

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

Attendance at meetings of technical societies:

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Nicolai, Van Olin                   Highest Degree: Ph.D.

Academic Rank: Research Associate   Admin. Title:

Time devoted to University work according to official appointment:  X  Full Time;  3/4;  1/2; 

1/2;  1/4;  1/2 Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as ______ percent of full load in the fall semester and ______ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 100 percent of a full load in the fall semester and 100 percent in the spring semester. Major projects and areas of specialization are:

- Development of repair of Liquid Hydrogen - Helium Targets
- and the hydrogen liquefier. This represents
- a service to experimenters working with the
- 300 Mev Betatron.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

Attendance at meetings of technical societies: American Physical Society

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Nordsieck, Arnold T.

Highest Degree: Ph.D.

Academic Rank: Professor and Research Professor

Admin. Title:

Time devoted to University work according to official appointment: X Full Time; ¾; ½; ½; ½; ½; ½; ½; ½; ½; Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 50 percent of full load in the fall semester and 50 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 60 percent of a full load in the fall semester and 60 percent in the spring semester. Major projects and areas of specialization are:

Theoretical Physics

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of 5 clock hours per week. The principal time-consuming duties are: Administrative meetings

MEMBERSHIP ON COMMITTEES:

Department: Advisory Committee

Qualifying Exam. Committee

College:

University:

Technical Societies and Advisory Groups:

Board of Editors of Physical Review
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

Attendance at meetings of technical societies:

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Okkerse, Boudewijn

Highest Degree: Ph.D.

Academic Rank: Research Associate

Admin. Title:

Time devoted to University work according to official appointment: __X__ Full Time; __3/4__; __3/4__; __1/2__; ___1/3__; ___1/4__; ___Time.

BEGINNING Nov. 1, 1954)

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as ______ percent of full load in the fall semester and ______ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 100 percent of a full load in the fall semester and 100 percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:
Royal Institute of Engineers, both in the Netherlands
Royal Chemical Society

Attendance at meetings of technical societies:
Chicago meeting, APS, November 1954

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:
Self-diffusion in gold: completed
Diffusion of impurities into gold: in progress
Reduction damage in Y, Sr, Sb

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Paton, Robert F.  Highest Degree: Ph.D.

Academic Rank: Associate Professor  Admin. Title:

Time devoted to University work according to official appointment:  X Full Time;  ¾;  ½;  ¼;  ½;  ¾;  ½;  ¼;  Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Assistants and Fellows
Undergraduate Studies
LAS Physics and Teacher Training
Schedules

College: Improvement of Teaching Program

University: Committee on Preparation of Secondary School Teachers of Science
All-University Forums

Technical Societies and Advisory Groups:
Sigma Xi - Officers Nominating Committee
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society (Fellow)
American Assn. for Advancement of Science (Fellow)
American Assn. of Physics Teachers
Sigma Xi
Illinois Academy of Science

Attendance at meetings of technical societies:

American Physical Society  
American Assn. of Physics Teachers  
{Minneapolis, June 1954.}
American Physical Society  
American Assn. of Physics Teachers  
{New York, Jan. 1955}

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Secretary's Annual Report of A.A.P.T.  
Amer. Journ. Physics

Reviews— Ballard, Hausmann and Slack, "Physics Principles"
Bennett, "Introduction to Physics"
Published in Scientific Monthly.

Addresses — Title, organization addressed, and date:

"Time and Temperature", Omega Beta Pi (Premed Honorary), Apr. 27, 1955.

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:

Member of Conference at Northwestern Univ., June 1954 (financed by Nat. Sci. Found.) on "Training of College Physics Laboratory Assistants"; conducted one of the Panels and was member of Com. on Conclusions.
UNIVERSITY OF ILLINOIS

COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Pines, David

Highest Degree: Ph.D.

Academic Rank: Research Assistant Professor

Admin. Title:

Time devoted to University work according to official appointment: Full Time; 3/4; 2/3; 1/2; 1/4; 1/4; Time.


TEACHING:

Teaching program for the current academic year was reported to the Bureau of Institutional Research as percent of full load in the fall semester and percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH:

Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 100 percent of a full load in the fall semester and percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES:

University duties not directly credited to teaching and research occupy an average of clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

Attendance at meetings of technical societies:

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Rawcliffe, R. Douglas

Highest Degree: Ph.D.

Academic Rank: Assistant Professor

Admin. Title:

Time devoted to University work according to official appointment: 

- Full Time; 
- ¾; 
- ¾; 
- ½; 
- ¼; 

TEACHING: 

Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: 

Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as percent of a full load in the fall semester and percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: 

University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Building and Power

College:

University: Physics, Chemical Biology

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society

Attendance at meetings of technical societies:

American Physical Society Chicago Meeting

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Research in progress - Study of factors related to photosynthesis.
Development and applications of the micro scale photosynthetic
(Mr. David C. White, Student) plant.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME  Robinson, Clark S.                       Highest Degree  Ph.D.

Academic Rank Research Assoc. Professor      Admin. Title

Time devoted to University work according to official appointment:  x  Full Time;  ¾;  ½;  ⅓;  ⅓;  Time.

TEACHING:  Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 75 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH:  Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and 25 percent in the spring semester. Major projects and areas of specialization are:

Study of meson production, using x-rays from the 300 Mev betatron, with scintillation counter techniques. Study of pair production and bremsstrahlung processes up to 300 Mev.

OTHER DUTIES:  University duties not directly credited to teaching and research occupy an average of 4 clock hours per week. The principal time-consuming duties are:

Advising on administrative or general technical matters at Betatron Laboratory.
Supervising Betatron Laboratory electronics shop.

MEMBERSHIP ON COMMITTEES:

Department: Assistants and Fellows

College:

University:

Technical Societies and Advisory Groups:

Science Talent Search Committee-- Illinois State Academy of Science
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

- American Physical Society
- Amer. Assn. for Advance of Science
- Illinois State Academy of Science

Attendance at meetings of technical societies:

- American Physical Society, Chicago, November 1954.

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching: 

**Supervision of following graduate theses:**

- **Completed** - Photoproduction of $\pi^+$ mesons from hydrogen near threshold.

- **In progress** - Photoproduction of $\pi^+$ mesons from deuterium near threshold
  - Photoproduction of $\pi^+$ mesons at small angles
  - Study of high energy, large angle, pair production.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

- **Photoproduction of $\pi^+$ Mesons from Hydrogen Near Threshold.** (with J.E. Leiss and S. Penner) Phys. Rev. 98, 201-202(L), (1955).

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Salzman, George
Highest Degree: Ph.D.

Academic Rank: Instructor
Admin. Title:

Time devoted to University work according to official appointment: X Full Time; ¾; ⅔; ½; ⅓; ¼; Time.

TEACHING:
Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH:
Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES:
University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:
Department: Schedules
College:
University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

Attendance at meetings of technical societies:

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

- Scattering of High Energy Electrons on Protons, work reported at the Washington (55) American Physical Society meeting and still in progress.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

- Born-Type Rigid Motion in Relativity — S. Salzman and A. H. Taub, Phys. Rev. 95, 51659-1669 (1954)

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME Schmitt, Roman A. Highest Degree Ph.D.

Academic Rank Research Associate Admin. Title

Time devoted to University work according to official appointment: Full Time; ¾; ½; ¼ Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as percent of full load in the fall semester and percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 100 percent of a full load in the fall semester and 100 percent in the spring semester. Major projects and areas of specialization are:

Study of photonuclear reactions, particularly photofission, by utilization of radiochemical techniques.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society
American Chemical Society
Sigma Xi

Attendance at meetings of technical societies:

American Physical Society, Chicago, November 1954.
Photonuclear Conference, Cleveland, Ohio.

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:


In progress—The branching ratio of photofission to photoneutron emission in natural uranium. (with J. Gindler, J.R. Huizenga and R.B. Duffield)
A study of fission asymmetry as a function of excitation energy. (with R.B. Duffield)
A study of selected neutron deficient nuclides. (with R.B. Duffield)

Publications—Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


Photofission yield curves for natural uranium. (with R.B. Duffield)
Photofission yield curves for thorium. (with R.B. Duffield)

Addresses—Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
UNIVERSITY OF ILLINOIS

COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Seitz, Frederick
Highest Degree: Ph.D.
Academic Rank: Professor
Admin. Title: Technical Director of Control Systems Lab.

Time devoted to University work according to official appointment: X Full Time; ¾; ½; ¼; ⅛; ⅛; Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as _______ percent of a full load in the fall semester and _______ percent in the spring semester. Major projects and areas of specialization are:

Theory of radiation effects in solids
Energy bands in solids

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of _______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:
Department: Physics Colloquium
College:
University: Academic Freedom
University Research Board

Technical Societies and Advisory Groups:

Chairman, Governing Board American Institute of Physics
Member, Council of American Physical Society
Member, Committee on Basic Sciences, Office Secretary of Defense
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

Attendance at meetings of technical societies:

American Physical Society January, March, and April Meetings

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Completed extensive study of radiation damage in solids

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


The Theory of Radiation Effects in Solids (with J. S. Koehler) to be published.


Addresses — Title, organization addressed, and date:


Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:

Summer Service to US Air Force in Europe 1954 (Classified).
UNIVERSITY OF ILLINOIS
COLLEGE OF ENGINEERING — DEPARTMENT OF ___Physics______

May 1, 1955 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Sherwin, Chalmers, W. Highest Degree: Ph.D.

Academic Rank: Professor Admin. Title: 

Time devoted to University work according to official appointment: ☑ Full Time; — 3/4; — 3/4; — 1/2; — 1/2; — 1/4; — 1/4; — Time. (On leave of absence first semester)

TEACHING:
Teaching program for the current academic year was reported to the Bureau of Institutional Research as ______ percent of full load in the fall semester and ______ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH:
Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ______ percent of a full load in the fall semester and ______ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES:
University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: None

College: None

University: None

Technical Societies and Advisory Groups:
Scientific Advisory Board to the Chief of Staff, USAF.
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

Attendance at meetings of technical societies:

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
UNIVERSITY OF ILLINOIS
COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Slichter, Charles P. Highest Degree: Ph.D.

Academic Rank: Associate Professor Admin. Title:

Time devoted to University work according to official appointment: __X__ Full Time; __⅓__; __⅓__; __⅓__;

⅓__; __⅓__; __⅓__; ___ Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as ___ percent of full load in the fall semester and ___ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as ___ percent of a full load in the fall semester and ___ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ___ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:
- Advisory Committee
- Undergraduate Studies
- Engineering Physics
- Placement

College: Placement

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society
Sigma Xi

Attendance at meetings of technical societies:

American Physical Society: Chicago, November 1954
Berkeley, December 1954.
Baltimore, March 1955


Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:


Individual research on topics in magnetic resonance.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


Addresses — Title, organization addressed, and date:

Colloquia at: University of Wisconsin, Univ. of North Carolina, and Brown University.

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
UNIVERSITY OF ILLINOIS
COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1955 to April 30, 1956

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME Smith, James H. Highest Degree Ph.D.

Academic Rank Assistant Professor Admin. Title

Time devoted to University work according to official appointment: X Full Time; 3/4; 1/2; 1/3; 1/4; Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as 100 percent of full load in the fall semester and 100 percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as percent of a full load in the fall semester and percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Physics Club and Open House, Chairman

College: Exhibits and Tours Committee, Chairman

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society

Attendance at meetings of technical societies:


Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

**In process** The pseudodeuteron model of photodisintegration at high energies.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


Addresses — Title, organization addressed, and date:


Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Snyder, James N.                        Highest Degree: Ph.D.

Assistant Professor and

Teaching program for the current academic year was reported to the Bureau of Institutional Research as 87½ percent of full load in the fall semester and 87½ percent in the spring semester. (Department secretary may fill in this information.)

Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 12½ percent of a full load in the fall semester and 12½ percent in the spring semester. Major projects and areas of specialization are: in Control Systems Laboratory

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Graduate Studies and Exams
Computing Service

College: College Policy and Development
Executive Committee

University: Committee of Younger Faculty to Assist in Selection of a President

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

American Physical Society
Phi Beta Kappa
Sigma Xi

Attendance at meetings of technical societies:

American Physical Society: Chicago, November 1954

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Completed
Supervised thesis of R. Rubenstein, entitled "The Auger Effect"

In progress
Alpha-Alpha Scattering Analysis
Solution of Linear Equations
Stability of Synchrotron Orbits

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:


Addresses — Title, organization addressed, and date:


Several Control Systems Laboratory reports (classified)

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:

Full-time research with Control Systems Laboratory in summer.
Consultant for Los Alamos Scientific Laboratory.
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Strehelin, Peter

Highest Degree: PhD

Academic Rank: Research Associate

Admin. Title:

Time devoted to University work according to official appointment: Full Time; 3/4; 2/3; 1/2; 1/3; 1/4; Time.

TEACHING:
Teaching program for the current academic year was reported to the Bureau of Institutional Research as percent of full load in the fall semester and percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH:
Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 100 percent of a full load in the fall semester and 100 percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:
Soc. Suisse de Phys.

Attendance at meetings of technical societies:
Washington, April 1955, three days.

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:
Research in progress: Adaption of cyclotron to the acceleration of He$^3$.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Thomson, Robb M.                                      Highest Degree: Ph.D.

Academic Rank: Research Associate                              Admin. Title:

Time devoted to University work according to official appointment: □ Full Time; □ 3/4; □ 3/2; □ 1/2;
□ 3/3; □ 1/4; □ Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as ______ percent of full load in the fall semester and ______ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 100 percent of a full load in the fall semester and 100 percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of _____ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:  

Membership in technical societies and fraternities:  

Amer. Physical Soc.

Attendance at meetings of technical societies:  


Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

Calculation of binding energy of impurities to dislocations in NaCl. (In progress)

Calculation of anisotropic elastic energy of dislocation in NaCl — (To be published)

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
UNIVERSITY OF ILLINOIS

COLLEGE OF ENGINEERING — DEPARTMENT OF Physics

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME Tomizuka, Carl T. Highest Degree Ph.D.

Academic Rank Research Associate Admin. Title

Time devoted to University work according to official appointment: Full Time; 3/4; 2/3; X 1/2; 1/3; 1/4; Time. (Also 50% appointment in Elec.Eng.Dept.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as percent of full load in the fall semester and percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as percent of a full load in the fall semester and percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department: Radioactive Records and Protection.

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:
- American Physical Society
- Physical Society of Japan
- Sigma Xi

Attendance at meetings of technical societies:
- AEC Metallurgy, Schenectady, N.Y., June 1954
- American Physical Society: Chicago, November 1954
  - New York, January 1955
  - Baltimore, March 1955.

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

- Intermetallic diffusion.
- Diffusion in semiconductors
- High voltage characteristics of Ge and Si.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

- Mechanism of Intermetallic Diffusion. (with W.M. Portnoy and H. Letaw)

Addresses — Title, organization addressed, and date: Phys. Rev. 97, 836-837(L), (1955).

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work:
RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME: Woodruff, Truman O.                        Highest Degree: Ph.D.

Academic Rank: Research Associate                  Admin. Title:

Time devoted to University work according to official appointment: Full Time; ¾; ¾; ½; ½; ½; ½; Time. (Beginning Jan. 5, 1955)

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as percent of full load in the fall semester and percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as percent of a full load in the fall semester and percent in the spring semester. Major projects and areas of specialization are: I am engaged in theoretical research in the field of the quantum mechanics of solids. My major project thus far has been a study of methods for calculating the energy band structures of crystals.

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

I am a member of the American Physical Society

Attendance at meetings of technical societies:

I attended the March meeting of the American Physical Society in Baltimore (March 17, 18, 19, 1955).

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

I am presently calculating the energy band structure of silicon by the method of orthogonalized plane waves.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Addresses — Title, organization addressed, and date:

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

I frequently have informal discussions with one graduate student on his thesis research work.

Other professional activities, including summer work:
UNIVERSITY OF ILLINOIS

COLLEGE OF ENGINEERING — DEPARTMENT OF __Physics_______

May 1, 1954 to April 30, 1955

RECORD OF TEACHING, ADMINISTRATION, RESEARCH, AND GENERAL ACTIVITIES

NAME Yamaguchi, Yoshio __________________________ Highest Degree __D.Sc.__

Academic Rank __Research Associate________ Admin. Title ________________________

Time devoted to University work according to official appointment: ___ Full Time; _¾; _½; _¼; ___ Time.

TEACHING: Teaching program for the current academic year was reported to the Bureau of Institutional Research as ______ percent of full load in the fall semester and ______ percent in the spring semester. (Department secretary may fill in this information.)

RESEARCH: Percent of official appointment time devoted to research was reported to the Bureau of Institutional Research as 100____ percent of a full load in the fall semester and 100____ percent in the spring semester. Major projects and areas of specialization are:

OTHER DUTIES: University duties not directly credited to teaching and research occupy an average of ______ clock hours per week. The principal time-consuming duties are:

MEMBERSHIP ON COMMITTEES:

Department:

College:

University:

Technical Societies and Advisory Groups:
PROFESSIONAL ACTIVITIES:

New degree, and name of institution granting:

Membership in technical societies and fraternities:

The Physical Society of Japan

Attendance at meetings of technical societies:

American Physical Society: Washington, Apr. 29-May 1, 1954
Minneapolis, June 29-30, 1954

Research completed this year or in progress, including individual research, supervision of graduate theses, and research aimed at improvement of teaching:

In progress: Photon-nucleon scattering
Photo-disintegration of the deuteron.

Publications — Co-author, Title, Journal or Publisher, Volume, Page, and Date; including reports prepared for limited distribution:

Two-Nucleon Problem When the Potential is Nonlocal but Separable, I. Phys. Rev. 95, 1628-1634 (1954).
Two-Nucleon Problem When the Potential is Nonlocal but Separable, II. (with Yoriko Yamaguchi) Phys. Rev. 95, 1635-1643 (1954).

Voluntary student-faculty activities (for example, attendance at student meetings, participation in them, individual informal counseling with students, entertaining students in your home or elsewhere, etc.):

Other professional activities, including summer work: