

## **Research Expectations in the Department of Physics & Astronomy**

The following represents a set of expectations for Physics and Astronomy faculty whose research allocation is 30-60%. These descriptions are general, and specific evaluation of faculty research must take into account the nature of their research as well as the funding requirements that are the norm in their discipline. Significant quality research activity is expected in each of the following areas: student research mentoring, publications, extramural presentation of research, and grant writing.

### **Mentoring**

Faculty are expected to mentor both undergraduate and graduate students in research.

### **Publications**

Faculty are expected to disseminate in a timely manner results of their research and scientific instrumentation work. The quality of their publications will be assessed by the quality of the journals (e.g., peer-reviewed articles are very important whereas conference proceedings carry little weight) and recognition by the field (awards, citations, etc.). Invited and review articles as well as patents are additional indicators of the quality of the faculty member's research. "Leading" a publication implies the first author is either the faculty member, their student, or their postdoc.

### **Presentations**

Faculty are expected to connect to their national/international peer group. Such activities might include: regular presentation of research results in society and other specialist meetings and workshops, involvement in the departmental seminar program by inviting and hosting speakers from other institutions, and presenting seminars at other institutions.

### **Grant writing**

Faculty are expected to frequently write proposals for grants and/or contracts from national agencies to support individual or collaborative research. Loss of funding may occur, and it is reasonable to allow time (1-2 years) to reestablish a funding stream; high priority should be placed on grant writing in times of lapsed funding. Whether proposals are granted with the faculty designated as PI or CoI is not as important as whether faculty are able to attract funding to sustain their research and support their students.

Faculty will be assigned Job Descriptions according to their research activity. For example, a faculty member with a 30% research allocation will at a minimum be expected to be the primary research mentor for one graduate student or two undergraduate students, to lead one refereed publication per year on average, and to submit one credible extramural research proposal per year. A faculty member with a 60% research allocation will at a minimum be expected to be the primary research mentor for one graduate student or two undergraduate students, to lead two refereed publications per year on average, and to have

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continuing and significant research funding. However, faculty within their first three years on the tenure-track are not expected to have attained grant funding.

For promotion to Associate Professor, faculty will need to have demonstrated significant success in obtaining extramural funding, mentoring multiple students in research, and establishing a national reputation in their field (e.g., invitations to write review articles, peer review grants and papers, and/or organize national research conferences). For promotion to Full Professor, faculty will need to have shown these qualities in addition to having established a long-term stream of extramural funding and establishing an international reputation in their research area (e.g., well-cited papers).

For post-tenure faculty to achieve satisfactory marks in the bi-annual post-tenure review process, they should meet the guidelines described above according to their job description. Research inactive faculty cannot expect to achieve tenure or promotion.