

## Preliminary Exam for Astronomy Graduate Students

The preliminary exam for graduate students in Astronomy consists of an oral and a written part. For Ph.D. candidacy, a student must pass both exams.

### Oral exam:

The oral exam will focus on depth of knowledge in the student's area of research. The student will be asked to prepare a 30-minute conference-style talk about a topic related to research the student has done in graduate school (not restricted to the student's thesis project). Ideally, the student will talk about their research, however, if their work so far has been primarily technical (e.g., application of pipelines, ground-work in data reduction), the expectation is that the talk will cover the science underlying the student's project, not simply a list of tasks the student has performed. The talk is open to the committee only.

After the talk, the student will be examined in depth on their presentation and on topics related to their research in closed session. The focus will be on establishing that the student

- a. has developed a deep understanding of the topic;
- b. displays physical thinking and can answer questions they might be confronted with at a scientific conference or after giving a seminar;
- c. has developed an integrated understanding of associated research areas, as might be reasonably expected by an end-of-second-year student.

A *three-person oral exam committee* not including the student's advisor will be assembled separately for each student to comprise faculty knowledgeable in areas related to the student's research topic. The oral exam committee will consult with the student's advisor before the day of the exam to determine the general topics covered in the exam and to verify that questions are fair in the sense of being related to the research of the student (that is, it is reasonable to expect the student to be able to answer the question).

The exam performance will be evaluated on a rubric. Pass-fail delineation will be based on the rubric as evaluated by the committee. The committee will inform the faculty of the performance of the student.

The oral exam shall be given within two weeks of the written exam. Extensions beyond this deadline require written approval from the chair. Students who fail the oral exam on their first try will have one opportunity to re-take the oral at least six months from their first oral exam but no later than the second week of classes of their sixth semester.

Anonymized data collected from the rubric will become part of the department's graduate program assessment.