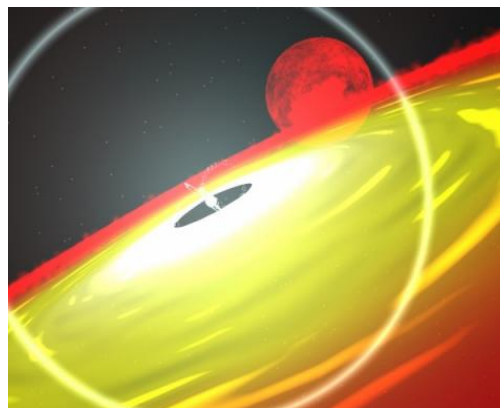


Astrophysical Applications

Physics 154

Basics:

Instructor: Associate Professor Lloyd Knox
CRN: 66654 Units: 4
When: WF 9:30-10:50
Where: Phys/Geo 432
Prerequisites: 105AB, 110A; 110B and 115A concurrently; 112 (or permission of instructor)



Content:

Students will apply concepts learned from their previous physics courses to astrophysical problems. In particular we will study compact objects, neutrino oscillations, the production of dark matter in the big bang, and cosmic microwave background anisotropy.

Objectives:

The aim of the course is to deepen your understanding of and facility with physical concepts to which you have already been exposed.

Format:

This class will have close to zero time spent listening to lectures. Students will work on problem sets both outside of class and in class. Most class time will be spent working on problems individually or in small groups while the instructor and a teaching assistant (given sufficient enrollment) move from group to group discussing the problems and providing guidance toward the solutions. Through interaction with each other, with the professor and with the assistant, students will improve their facility with basic physics and deepen their physical intuition. Outside reading assignments, rather than in-class lectures, will prepare the student for the in-class problem-solving sessions.

Grading:

Grades will be based on attendance and participation (30%), homework (35%) and a final exam (35%). The default grading mode is letter, even though it does not look like it on the system right now. It is possible to opt for P/NP through sisweb options before the May 3 deadline.