

PhD Physics course at Bari University (XXXIII Cycle)

Title	Nuclear Astrophysics
Proponent	Giuseppe Tagliente
# CFU (1 CFU = 8 hours)	2 CFU
Schedule	February - April
Brief Summary of the course	The nuclear processes generate the energy that makes stars shine. The same processes in stars are responsible for the synthesis of the element present in the universe. Nucleosynthesis, energy production in the stars, and other topics overlapping astrophysics and nuclear physics make up the science of nuclear astrophysics. Like most fields of physics, it involves both theoretical and experimental activities. The purpose of this course is to explain these concepts with special emphasis on nuclear processes and their interplay in the stars
Programme	<p>Lesson 1. Aspects of nuclear physics and astrophysics.</p> <p>Lessons 2-3. Nuclear and thermonuclear reactions</p> <p>Lessons 4-6. Processes of Nucleosynthesis</p> <p>Lessons 7-8. Nuclear physics experiment for astrophysics</p>
Recommended texts	Materials will be provided by the lecturer
Assessment methods	Seminar on an agreed topic