

PHYS-709

Stellar evolution and nucleosynthesis (UNIGe)

University of Geneva faculty members

Cursus	Sem.	Type
Physics		Obl.

Language of teaching	English
Credits	5
Session	
Exam	Multiple
Workload	150h
Hours	84
Courses	56
TP	28
Number of positions	

Frequency

Every year

Remark

Every year / Fall & Spring (Full year)

Summary

Introduction to the physical mechanisms governing stellar equilibrium, stellar evolution and nucleosynthesis. Study of evolution from star formation to supernovae and condensed remnants.

Content

Mechanical equilibrium
 Thermal equilibrium and radiative transfer
 Nuclear reactions
 Numerical simulations
 Star formation and observations
 Hydrogen burning phase
 Helium burning and advanced nuclear phases
 Supernovae and nucleosynthesis
 White dwarfs, neutron stars and black holes
 Stellar pulsations
 Helioseismology and asteroseismology

Lecturer : Prof. Georges Meynet, Observatoire de Genève

Learning Prerequisites**Recommended courses**

Master, option astrophysics