UNIVERSITÀ DI PAVIA

Anno Accademico 2017/2018

ASTROPHYSICS

Enrollment year	2016/2017
Academic year	2017/2018
Regulations	DM270
Academic discipline	FIS/05 (ASTRONOMY AND ASTROPHYSICS)
Department	DEPARTMENT OF PHYSICS
Course	
Curriculum	Fisica nucleare e subnucleare
Year of study	2°
Period	2nd semester (01/03/2018 - 15/06/2018)
ECTS	6
Lesson hours	48 lesson hours
Language	Italian
Activity type	ORAL TEST
Teacher	GIULIANI ANDREA (titolare) - 6 ECTS
Prerequisites	Principles of special relativity and particle physics.
Learning outcomes	Learning of basic concepts of modern cosmology and astrophysics, with particular emphasis on those related to the last stages of stellar evolution.
Course contents	The main topics of the course are: - radiative processes in astrophysics: blackbody, bremsstrahlung, cyclotron and syncrotron, inverse Compton; - basic cosmology and cosmic microwave background; - galaxy clusters and Sunyaev-Zeldovich effect; - star formation and evolution; - supernovae and Gamma-Ray Bursts; - compact objects: white dwarfs, neutron stars and black holes; - binary systems and accretion;

	- exoplanets.
Teaching methods	=
Reccomended or required readings	H. Bradt: "Astrophysical Processes: The Physics of Astronomical Phenomena", Cambridge University Press.
Assessment methods	Oral examination. It will required a quick presentation (10 min with slides) on a topic chosen by the student, and the answering of some questions on other topics.
Further information	Oral examination. It will required a quick presentation (10 min with slides) on a topic chosen by the student, and the answering of some questions on other topics.
Sustainable development goals - Agenda 2030	$lbl_legenda_sviluppo_sostenibile