



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Relativistic Astrophysics

2122-1-F5802Q003

---

#### Aims

Application of fundamental concepts of special and general relativity to the field of astrophysics

.....  
.....  
.....  
.....

#### Contents

1- Basics of special and general relativity

.....  
.....  
.....

#### Detailed program

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

### **III- GRAVITATIONAL LENSING**

-----  
-----  
-----

### **IV- GRAVITATIONAL WAVE (GW) EMISSION**

-----  
-----

### **V- TIMING OF MILLISECOND PULSARS**

-----  
-----  
-----

### **VI- FORMATION, EVOLUTION AND DYNAMICS OF MASSIVE BLACK HOLES (MBHs)**

-----  
-----  
-----

#### **2- MBH growth along the cosmic history**

-----  
-----  
-----  
-----  
-----  
-----

#### **3- Formation and evolution of massive black hole binaries (MBHBs)**

-----  
-----  
-----  
-----  
-----

### **Prerequisites**

None, besides the basic classes of the bachelor

### **Teaching form**

56 hours of frontal lectures, mostly at the blackboard, occasionally with the support of slides.

Lectures will be in English.

### **Textbook and teaching resource**



the rest of the exam, the lecturer will ask other questions covering any of the topics treated in class.

There will be no intermediate examinations nor homework.

## **Office hours**

Any day is possible, so long as an appointment is requested via email. I generally use Google Meet for remote meetings.

---