

## **Enclosure 6**





**the International Relativistic Astrophysics Ph.D. Erasmus Mundus Joint Doctorate Program**

IRAP PhD



**THE PROGRAM**

The International Relativistic Astrophysics Ph.D. Program is a three-year, joint doctorate program sponsored by Erasmus Mundus, CAPES and ICRA/Net. It is designed to provide students with a high-quality, international education in the field of relativistic astrophysics. The program is structured to allow students to spend time at three different institutions, gaining a broad perspective on the field. The curriculum is designed to be flexible, allowing students to tailor their studies to their specific interests. The program is open to students from all over the world, and it provides a unique opportunity for students to work with leading experts in the field. The program is designed to be a challenging and rewarding experience, and it is a great way to gain a deep understanding of relativistic astrophysics.

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**THE PROGRAM IS OPEN TO:**

- Students from all over the world.
- Students who are interested in the field of relativistic astrophysics.
- Students who are looking for a challenging and rewarding experience.
- Students who are looking for a high-quality, international education.

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- CAPES
- ICRA/Net

**THE PROGRAM IS COORDINATED BY:**

- ICRA/Net

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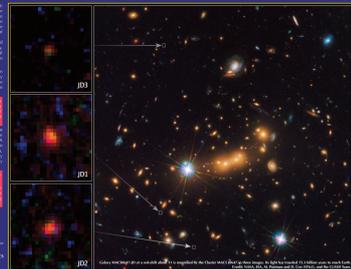
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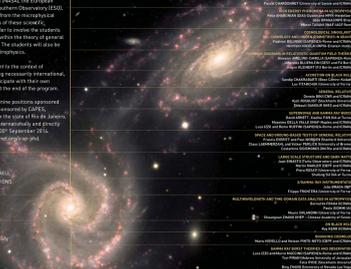
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**COURSES: DURING THE THREE YEARS 180 HOURS OF CLASSES WILL BE FOLLOWED, FROM THE COURSES INDICATED HERE, AS WELL AS FROM ADDITIONAL COURSES IN THE PARTICIPATING INSTITUTIONS.**

**ICRA/Net**  
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www.icranet.org  
secretariat-irap@icra.it

**COSMOLOGY WITH GAMMA RAY BLISTS**  
Lorenzo IABRILE (INAF-Frascati)  
Carlo LUIGI BRANCO (Sapienza-Rome and ICRA/Net)  
Michael BOER (INTEC-France)  
Lara LEZZI (Sapienza-Rome and ICRA/Net)

**HIGH ENERGY PHENOMENA IN ASTROPHYSICS**  
Felix AMONSON (Sonnech-Berlin and IPR-Heidelberg)  
Ulisses BARRE DE ALMEIDA (SPTAC-Brasilia)  
Alexandre DE ANGELIS (INPA-Uberlândia)  
Paulo GIOVANNI (IAS-ASDC-Rome)  
Mauricio TAMURA (INPA-ASDC-Rome)

**COSMOLOGICAL SINGULARITY, BIL COSMOLOGY AND HIGHER DIMENSIONAL GRAVITY**  
Vladimir BELITSKIY (Sapienza-Rome and ICRA/Net)  
Hermann NICKOLAUS (LIPSC-Essen/Institute)

**RELATIVISTIC QUANTUM FIELD THEORIES**  
Giuseppe AMELINO-CAMELIA (Sapienza-Rome)  
Antonio BILMELIN (IS25 and TU-Darmstadt)  
Gabriele GRONTEI (Vitoria)  
Hagen KUNZE (FU-Berlin and ICRA/Net)

**ACCRETION ON BLACK HOLES AND NEUTRON STARS**  
Sergei CHAKRABARTI (Bose Centre-Kolkata)  
Christopher FRYER (LANL-USA)  
Gaurav KHARVIVIC (ICRA/Net)

**GENERAL RELATIVITY**  
Dimitrie ZONE (INAF and ICRA/Net)  
Bruno CANTO DA SILVA (LIPSC-Rome)  
Johannes KUNZE (Oskarburg-Germany)  
Volker PERLICH (Kiel, at Bremen-Germany)

**SUPERNOVAE AND GAMMA RAY BLISTS**  
Alexey ANTONOV (ICRA/Net, IAS-Moscow)  
Massimo DELLA VALLE (INAF-Naples and ICRA/Net)  
Yoshida HANAJIMA (Japan)  
George MEYNET (IbM, UCLG-Corvallis)  
Romana MATEUCCI (Sapienza-Rome and ICRA/Net)

**GRAVITATIONAL WAVES: THEORY AND DETECTION**  
Thibault DAMOUR (IPRIS and ICRA/Net)  
Sergio PASTORA (Sapienza-Rome)

**SPACE AND GROUND-BASED TESTS OF GENERAL RELATIVITY**  
Francis EVERITT and Paul WOODEN (Stanford University)  
Claudia LAMARCA (University of Bremen)  
Roberto PERONI (INAF-Rome)  
Constantine SIKIYAZIS (ON-Rio and ICRA/Net)

**LARGE SCALE STRUCTURE AND DARK MATTER**  
Carlo AGUIRRE (ICRA/Net)  
Nikolaos MAMONTELAKIS (Birkbeck College-London)  
Marco MERLINI (Sapienza-Rome)  
Francesca ROSSI (University of Ferrara)

**GAMMA-RAY INSTRUMENTATION**  
Filippo FRONZONI (University of Ferrara)  
Dianping ZHANG (IBET - Chinese Academy of Sciences)

**MULTIWAVELENGTH AND TIME-DOMAIN DATA ANALYSIS IN ASTROPHYSICS**  
Riccardo FRAGA (ICRA/Net)  
Maurizio ORLANDINI (University of Ferrara)  
Jorge KUIJEDA (Sapienza-Rome and ICRA/Net)  
Claudio MANFRO (IIR-Brasilia)  
Fernando QUEVEDO (UNAM-Mexico)

**ON BLACK HOLES**  
Roberto PERONI (ICRA/Net)  
Hernando QUEVEDO (UNAM-Mexico)

**GAMMA RAY BLIST THEORIES AND OBSERVATIONS**  
Francis EVERITT (University of Sussex and ICRA/Net)  
Mauricio TAMURA (INPA-ASDC-Rome and ICRA/Net)  
Ana PENACCHIONI (INPE-Brasilia)  
Thibault DAMOUR (IPRIS and ICRA/Net)

**WHITE DWARFS, NEUTRON STARS, BOSON STARS, OBSERVATIONS AND THEORY**  
Riccardo BELVEDERE and Shreye M. DE CARVALHO (ICRA/Net)  
S. D. KETTER (IURCS-Brasilia)  
Claudio MANFRO (IIR-Brasilia)  
Antonio DI PIAZZA and Christoph H. KETTER (LIPSC)

**RELATIVISTIC KINETIC THEORY, STRONG COUPLING QED AND ELECTRON-POSITRON PLASMA**  
Gregory VERESHCHAGIN and Shi-Sheng XUE (Sapienza-Rome and ICRA/Net)