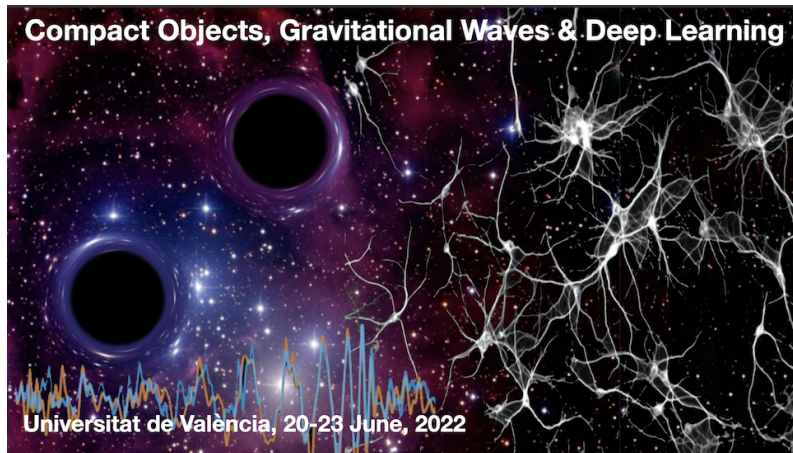


2nd Workshop on Compact Objects, Gravitational Waves and Deep Learning



Monday, 20 June 2022 - Thursday, 23 June 2022

ADEIT, University of Valencia

Scientific Programme

I- LECTURES

During the four days of the workshop, a set of lectures are foreseen in the morning, on different topics:

- Gravitational Waves Bayesian Analysis and Parameter Estimation by, Juan Calderon Bustillo (University of Santiago de Compostela, Spain)
- Neutron Stars and Equations of State (EOS) by, Micaela Oertel (LUTH, Observatoire de Paris, France)
- Compact Objects in Modified Gravity by, Diego Rubiera-Garcia (Universidad Complutense de Madrid, Spain)
- Event Horizon Telescope Results by, Iván Martí-Vidal (University of Valencia, Spain)
- Modeling Binary Neutron Star Mergers by, Roberto De Pietri (Parma University and INFN, Italy)
- Core-Collapse Supernovae and Light Curves by Martin Franz Obergaulinger (University of Valencia, Spain)
- Gravitational Waves Data Analysis by Alejandro Torres-Forné (University of Valencia)
- Electromagnetic Phenomenology of Neutron Stars (pulsars and magnetars) by, Michael Gabler (University of Valencia, Spain)
- Asteroseismology of Proto-Neutron Stars by, Pablo Cerdá-Durán (Departamento de Astronomía y Astrofísica, Universitat de València, Spain)
- Ultra-Light Particles by, António Morais (University of Aveiro)

II- Hands-on Sessions

In order to provide workshop participants (in person or remotely) experience with state of the art tools related to the main topics of the workshop, hands-on sessions are foreseen on

- State of the art equations of state (EoS) using Compose by, Micaela Oertel (Observatoire de Paris)
- Gravitational Waveforms from Generative Adversarial Networks (GANs) by, Felipe Freitas (University of Aveiro, Portugal)
- Gravitational Waves Bayesian Analysis and Parameter Estimation by, Juan Calderon Bustillo (University of Santiago de Compostela, Spain)

III- TALKS

In addition to the regular Lectures and Hands-on sessions foreseen in the workshop, the program includes the possibility of Abstract submission in case registered participants want to give an oral presentation. The time slot allocated to each individual talk is of 20 minutes (15' + 5' for questions). Due to time constraints, 9 slots of individual talks are foreseen Wednesday afternoon, in subjects related to the main topics of the workshop.

At the end of the workshop, on Thursday, a talk summarizing the main achievements and discussions during the 4 days of the event, will be presented by Jose Antonio Font (Departamento de Astronomía y Astrofísica, Universitat de València, Spain.