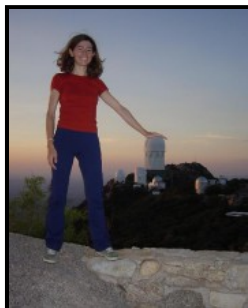




Events

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Other - CANCELLED

Stellar Collisions at the Limits of HPC**Orsola De Marco, Macquarie University, Australia**

Professor

Digital Media Center 1034

April 02, 2020 - 11:00 pm

Abstract:

Orsola De Marco (Macquarie University, Australia) will explore 3D hydrodynamic simulations as a technique for determining the mechanisms underlying the zoo of stellar interactions from supernovae to merging black holes. Her talk will focus on 3DHD, the techniques used (adaptive mesh, smooth particles hydrodynamics or moving mesh), their limitations, and possible solutions.

Speaker's Bio:

Orsola De Marco is an Italian-born, Australian astronomer who works on ageing, intermediate mass stellar binaries, using observations and 3D hydrodynamic computations. She received her PhD in 1997 from University College London on spectroscopic studies of hydrogen deficient stars, after which she had research fellowships at the polytechnic of Zurich, University College London and American Museum of Natural History, in New York. During these years she researched the lives and deaths of binary stars, simulating the phases of interaction that take place before they die as white dwarfs, neutron stars or black holes, creating all manners of outbursts and nebulae. She became an associate professor at Macquarie University in Sydney, Australia in 2009 and a full professor in 2015. In 2013 she was awarded an Australian Research Council Future Fellowship.

