

Lake Como School of Advanced Studies

BRAVE NEW WORLDS II

Understanding the planets of other stars

**Villa del Grumello
Como - Italy**

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Every star in our Galaxy hosts at least one planetary companion: our Milky Way is crowded with billions of planets!

But, the Solar System does not appear to be the paradigm in our Galaxy, but only one of the many possible configurations we are seeing out there. These include planets completing a revolution in less than one day, as well as planets orbiting two stars or moving on trajectories so eccentric as to resemble comets. Some of them are freezing cold, some are so hot that their surface is molten. How do we progress from here?

The school is aimed at providing a comprehensive view of the nature of exoplanets, through an integrated approach covering observations, data analysis and interpretation. Finding out why are these new worlds as they are is one of the key challenges of modern astrophysics.

LECTURES

Ahmed Al-Refaie (UCL)
Numerical models to interpret exoplanetary data
Beth Biller (University of Edinburgh)
Imaging extrasolar worlds
Masahiro Ikoma (NAOJ)
How do planets form and evolve
Miguel Angel Granada (Barcelona)
From the Only World to the Infinite Planetary Systems: Copernicus, Kepler, Bruno
Pierre Olivier Lagage (CEA)
Exoplanets with the James Webb Space Telescope
Malena Rice (MIT/Yale)
Orbital architectures of Planetary Systems
Giusi Micela (INAF - Osservatorio di Palermo)
The stellar environment
Jonathan Tennyson (UCL)
Molecular spectroscopy for exoplanets
Giovanna Tinetti (UCL)
Decoding the light of planets in our galaxy
Angelos Tsiaras (INAF - Osservatorio di Arcetri)
Analysis of exoplanetary data: a hands-on approach
Ingo Waldmann (UCL)
Artificial Intelligence and exoplanets

ORGANIZING COMMITTEE

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