

International Workshop
Planetary Systems beyond the Main Sequence

August 11 – 14, 2010
Bamberg, Germany

Planetary and brown dwarf companions to evolved stars have only recently been discovered. The aim of this conference is to discuss observational results and techniques as well as theoretical predictions for the formation and the fate of the orbiting substellar objects as well as for their impact on the evolution of the host stars. Central to the conference is to explore the impact of new and upcoming space missions like Kepler, GAIA and PLATO for this emerging field.

Science topics will include:

Influence of planets/substellar objects on evolved stars

- Planet-star interactions
- Giant planets in close orbits: common-envelope evolution
- Enhanced mass loss on the RGB
- AGB winds and the shaping of planetary nebulae

The fate of planets: do they survive, grow or shrink?

The stability and habitability of planetary systems around evolved stars

- Orbital dynamics and stability of planetary systems around evolved stars (where do we expect to find planets and debris disks?)

Debris disks around white dwarfs: their nature and origin

- Pollution of WD atmospheres by infalling minor planets: the observed metal abundance trends

Planet formation around evolved stars: second generation planets around neutron stars, white dwarfs and hot subdwarfs

- Planet formation in the dusty disks around AGB and post-AGB stars
- Stellar mergers and second generation planets

Detecting substellar objects around evolved stars (from RGB to WD)

- RV searches
- Travel time variations (pulsar timing, pulsating stars, binary eclipse timing)
- IR excess radiation (e.g. Spitzer)
- Micro-lensing planet detection around WD.
- Direct IR imaging
- Giant planets from astrometry, the GAIA perspective
- Novel observational techniques to test theories of planets' formation or survival around evolved stars

Substellar objects in binary stars

- HW Vir stars
- Cataclysmic variables

Venue

Harmonie-Säle
E.T.A.-Hoffmann-Theater
Schillerplatz 7
96047 Bamberg
Germany

SOC & LOC

Scientific Organising Committee Local Organizing Committee

Matt Burleigh
Stephan Geier
Paul Groot
Uli Heber (co-chair)
Michael Jura
Mukremin Kilic
Orsola de Marco
Pierre Maxted
Gijs Nelemans
Sonja Schuh
Roberto Silvotti
Noam Soker (co-chair)

Edith Day
Horst Drechsel (chair)
Stephan Geier
Andreas Irrgang
Uli Heber
Ingo Kreykenbohm
Thomas Kupfer
Veronika Schaffenroth

Contact

Ulrich Heber
Dr. Remeis-Sternwarte
Sternwartstr. 7
96049 Bamberg
Germany

phone: +49-951-9522214
fax: +49-951-9522222
email: heber@sternwarte.uni-erlangen.de