

First Announcement

We are pleased to announce the GREAT-ESF workshop

Gaia and the Unseen
The Brown Dwarf Question

at Torino University on March 24-25-26 2014

The ESA Gaia mission will revolutionise astronomy observing objects as diverse as minor planets, stars, galaxies out to QSOs and impacting almost all areas of astronomy. All but the closest and most massive or youngest brown dwarfs will be too faint for Gaia but many more will be indirectly detected via their gravitational effect on brighter companion stars. When this conference takes place the Gaia mission will have started and we will already have some feedback on the efficiency and the expectation for the mission. The meeting will concentrate on identifying what Gaia will do for brown dwarf science, what needs to be done to maximize the exploitation, and the discussion of original ideas with a mixing of the brown dwarf and the Gaia community.

The mornings will be dedicated to smaller parallel interactive sessions to foster an exchange of experience and a discussion of new ideas. Suggested topics for these sessions are listed below but we encourage the community to suggest other ideas by October 15th via email to gaiaandBDs@oato.inaf.it while the final program is still under development.

- Data-mining and the virtual observatory - Gaia CU9 tools, Topcat, CDS, astrogrid, VOSA.
- How GAIA will help us to determine binary parameters.
- Using GAIA benchmark brown dwarfs to anchor and advance the next generation of atmosphere models.
- Epsilon Ind BaBb a Gaia T dwarf: a case study.
- The impact of Gaia on ground and space based brown dwarf astrometric programs.
- Age determination for Brown Dwarfs
- Brown Dwarfs from x-rays to radio observations
- Identifying and confirming moving group members

The afternoons will be standard conference presentations with ample space for submitted talks. Typically the 3 days will be dedicated to, but not limited to, the following general themes:

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Day 1: Expectations of Gaia: Direct observations of ultra-cool and BDs; detection of BD companions.

Day 2: Synergies with Gaia: The impact of Gaia advances in stellar and galactic astrophysics on BD research; Gaia interactions with other surveys/instruments (Pan-STARRS, WISE, VISTA, ALMA);

Day 3: Gaia and the exotic: Novel uses of Gaia observations for BDs; combining Gaia with JASMINE; micro-lensing possibilities; relativity and astrometry of BDs.

Registration will be opened in early October. Updated information can be found at the meeting homepage:

<http://gaiaandBDs.oato.inaf.it/>

We look forward to seeing you in Torino.

The Scientific Organising Committee:

Beate Stelzer (INAF-OAPa, Palermo), Celine Reyle (Obs. de Besancon), Coryn Bailer-Jones (MPIA, Heidelberg), Davide Barrado y Navascues (CAB, Madrid), Davy Kirkpatrick (IPAC, California), France Allard (CRA, Lyon), Hugh R. A. Jones (UHerts, Hatfield), Jackie Flaherty (UChile, Santiago), Mario G. Lattanzi (INAF-OATo, Torino), Richard L. Smart (INAF-OATo, Torino).

The Local Organising Committee:

Alberto Vecchiato, Alessandro Sozzetti, Beatrice Bucciarelli, Catia Cardoso, Maria Teresa Crosta, Marica Sarasso, Roberto Morbidelli (INAF-OATo).