

Spanish Contribution to GREAT

Nice, November, 18th 2009

1st Spanish Meeting:

Gaia: La Galaxia en un Petabyte



Supported by MICINN

Menorca, October 2009
56 participants (10 institutes)

1st Spanish Meeting:

Gaia: La Galaxia en un Petabyte

- Goals (achieved!):
 - To transmit to the Community the experience of the groups involved in Gaia mission preparation
 - To identify common interests on present and future research lines
 - To analyse the synergies with present and future surveys from ground and space (on-ground facilities).
 - To create a Spanish network to prepare for the huge task of Gaia scientific exploitation, **REG**
 - To inform / involve the community on the European initiatives (GREAT, ITN)

REG: “Red Española de Gaia”

<https://gaia.am.ub.es/Twiki/bin/view/RecGaia/>
Application to MICINN for financial coverage

Research Interests (I)

- Our Galaxy and the Local Group
 - Stellar systems: Hierarchical Large Scale (Fractals)
 - Structure: non-axisymmetric disk components (Star Counts)
 - Galactic kinematics and Dynamics (Stellar Streams, Invariant Manifolds,)
 - MW satellites and halo stellar streams
 - Stellar Populations in the Local Group (CMD)
- Stellar Astrophysics:
 - Massive stars, brown dwarfs (IMF, binarity)
 - Stellar evolutionary models: from eclipsing binaries, PNe

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Research Interests (II)

- Distance Scale
 - Statistical distances
 - Distances to massive young clusters, Supergiants Luminosity calibration
 - Low-mass stars in Star Forming Regions (SFR)
- Solar System
 - TNOs taxonomy, ...
- The Use of 2-4m telescopes to derive radial velocities and accurate chemical composition
- Optimization of the supercomputing technology (BSC, Mare Nostrum) numerical applications such as galaxy simulations

Proposed activities in GREAT (I)

Spanish participation: Unofficially approved by MICINN

Meetings:

- “Associations and Star Clusters in the Era of the 8-10m telescopes”
 - Plenary Meeting (~300 participants), Granada, 2011 (Italy as backup)
 - Co-organized by: Bologna, IAA, UB, IAC, ...
- “Stellar Streams: origin and evolution”
 - Workshop (~60 participants), Barcelona, 2011-2012
 - Co-organized by: UB, UCM, IAC, Leiden, ...
- “Massive Stars as signposts for Gaia ”
 - Workshop (~60 participants), TBC (Alicante?), 2011 - 2012
 - Co-organized by: IAA, Univ. Alicante, ...

Proposed activities in GREAT (II):

Meetings:

- “Stellar Fundamental Parameters and eclipsing binaries”
 - Workshop (~60 participants), TBC, 2012
 - Co-organized by: UB, CAB (Madrid), ...
- The Galaxy: structure and dynamics
 - Plenary meeting (~300 participants), TBC, 2010-2011
 - Organized by Besançon (UB proposes to cooperate)

International School:

- “Statistical Techniques, Computation and Data Mining for the Scientific Exploitation of the Large Astronomical Data Bases”
 - Co-organized by: UNED, ESAC, UB, Univ. A. Coruña,
 - Pre- and Post-doctoral school (~60 participants), Junio 2011