CURRICULUM VITAE
of
PIERLUIGI MONACO

June 2010

Pierluigi Monaco was born in Palermo (Italy) on May 22nd, 1969. He is italian, and lives in Italy, at Staranzano (GO), via Marzabotto 5, I-34079. He married in June 1997 and has two daughters.

History

- October 1987: start of degree course in Physics at the University of Palermo.
- October 1991: moving to the University of Trieste.
- 11 July 1992: degree in Physics, with full marks (110/110) cum laude; supervisor, Prof. G. Giuricin, title of degree thesis 'Environmental effects on the galaxies of the Local Supercluster'.
- October 1992: start of PhD course in Physics, VIII cycle; supervisor, Prof. F. Mardirossian.
- May 1994 - May 1995: civil service.
- November 1996: PhD thesis, titled 'The Cosmological Mass Function'. A revised version has been published on Fundamentals of Cosmic Physics.
- July 1997: final PhD exam.
- July 1997: Marie Curie Research Training Grant of two years at the Institute of Astronomy of the University of Cambridge (UK), under the supervision of Prof. G. Efstathiou, on the project: 'Cosmology of Dynamically Evolved Structures, from Protogalaxies to Galaxy Clusters: Theory Developments, Comparisons to Simulations and Observations'.
- December 1998: taking up of permanent position as ricercatore universitario at the University of Trieste.
- January-April 1999: visit at the Institute of Astronomy, Cambridge, to complete the work of the Marie Curie grant.
- May 2002: visiting scientist at ESO in Garching.
- June 2005: visiting scientist at the Institute of Computational Cosmology in Durham, UK.
- July 2008: visiting scientist at the Centre de Physique Teorique in Marsiglia
- Invited visits and seminars in Cambridge (UK), Durham, Edinburgh, Cardiff, Oxford, Portsmouth, Garching (ESO and MPA), Toronto, Waterloo (Canada), Trieste (SISSA and OAT), Padova, Torino.
- On June 2010 ADS reports 81 papers authored by P. Monaco (38 as first author), of which 49 (18 as first author) are on refereed journals.

Fields of experience

- Non-linear evolution of cosmological perturbations
- Hierarchical clustering of dark matter halos
- Galaxy formation with analytical and semi-analytical methods
- Feedback from star formation
- Interstellar medium
- Active galactic nuclei
- Numerical simulations of galaxy formation
- Participation to the project Great Observatories Origins Deep Survey (GOODS)
- Observational run (deep imaging) at the Nordic Optical Telescope

Present research interests

- Physics of stellar feedback in galaxy formation.
- Semi-analytic models of galaxy formation and comparison with multi-wavelength data.
- Systematic comparison of different models of galaxy formation.
- Implementation of sub-resolution models of star formation and feedback in N-body/SPH simulations.
- Generation of the diffuse light component in galaxy clusters.
- The galactic habitable zone.

Teaching and outreach experience

- 2000-2001: course on Stellar Physics, at the fourth year of the 4-yr degree in Physics.
- 2000-2002: lectures on Non-Linear Evolution of Perturbations at the PhD course in Astrophysics at SISSA (Trieste).
- 2001-2010: course on Introduction to Astrophysics, at the third year of the 3-yr degree in Physics. The lecture notes are publicly available (http://physics.infis.univ.trieste.it/~monaco/).
- Supervisor of several theses for 4-yr degree in Physics, Master degree in Physics (Laurea Magristrale), PhD in Physics.
- December 2003: participation as lecturer to the International School on Galaxy Formation at Allahabad (India).
- September 2007: invited lecture to the ``Novicosmo" school on galaxy formation (Novigrad, Croatia).

- 2003-2010: public conferences and stages for high school students.
- 2008-2009: participation to "Vagabondi del Cosmo" series of public lectures.

Main research funds

- 1997, Marie Curie Research Training Grant of the European Community.
- ASI grant 2001, PI A. Cavaliere.
- COFIN INAF 2002, PI A. Cavaliere.
- COFIN MIUR 2003, PI B. Marano.
- 2005, co-funding for a post-doc position by the University of Trieste.
- PRIN-INAF 2005, PI S. Cristiani.
- PRIN-INAF 2006, PI C. Gruppioni.
- PRIN MIUR 2007, PI S. Borgani.
- ASI grant for "Cosmologia e Fisica Fondamentale", WP 3220.
- COSMOCOMP Initial Training Network (founded by EU under FP7), PI C. Baugh.
- Computational grants: Caspur Standard HPC grant 2009, PI G. Murante; Caspur Standard HPC grant 2010, PI P. Monaco; CINECA-INAF key project, PI G. Murante.