

Marisa Girardi

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Born in Vercelli (2nd Dic. 1963). Married in 1999. One daughter (2004).

EMPLOYMENT HISTORY

2014	National Academic Qualification 2012 for a position of Associate Professor (02/C1 class);
2000	Visiting scientist at ESO (European Southern Observatory, Garching, Munchen, Germany), 2 months;
1998-present	“Ricercatore universitario” at the University of Trieste (FIS/05 sector – Astronomy & Astrophysics); teaching activity since 2001;
1997-1998	Postdoctoral Research Fellow at the University of Trieste;
1996	Selected for "Training and Mobility of Researchers Programme", 2years at IAP-Paris. Declined;
1994-1996	Postdoctoral Research Fellow at the University of Trieste;
1992-1998	High school teaching position (“cattedra”); alternating teaching and researching periods;
1990	National Qualification for teaching Mathematics and Physics in high schools;
1989-1992	Ph.D. Fellow, SISSA-Trieste;
1988-1989	Postdegree Research Fellow, Astronomical Observatory of Trieste.

EDUCATION

	SISSA-ISAS, International School for Advanced Studies, Trieste, Italy
1992, October	Ph.D. In Astrophysics; Thesis: "Nearby Galaxy Clusters: Sizes and Velocity Dispersions";
1990, October	Master in Astrophysics; Thesis: "Environmental Effects on the Luminosity-Diameter Relation for Disk Galaxies". Univ. Of Trieste, Trieste, Italy
1988, July	Degree Physics cum laude; Tesi: “Evidenza di polveri in gruppi di galassie”.

RESEARCH ACTIVITY

MG works in extragalactic astronomy and observational cosmology with specific interests in clusters of galaxies. She has been involved for many years, and she has an active role in the analysis of the internal dynamics and properties of clusters of galaxies, and environmental effects on their member galaxies. Her activity is focused on analysis and interpretation of optical data, kinematics of member galaxies in clusters, and multiwavelength investigations of cluster properties. She has been PI or CoI in several awarded proposals of observational time at several optical telescopes; TNG Telescopio Nazionale Galileo, WHT and INT telescopes at Canary Islands; NTT, ESO-3.6m and VLT ESO telescopes (about 30, 4 as PI). She has also participated to awarded proposal at radio and X-ray telescopes (VLA, Chandra, XMM, Suzaku). She was Visiting Scientist at ESO in 2000 and has scientific collaboration with numerous national and international scientific Institutions active in Astrophysics.

Ongoing projects:

DARC	Dynamic Analysis of Radio Clusters to study clusters with radio halos/relics (MG responsibility);
FOGO	FOssil Groups Origin, an International Time Programme (participant);
CLASH-VLT	to study 14 HST observed clusters on the basis of a large programme at VLT (participant);
Euclid	ESA mission for the investigation of the nature of Dark Energy. MG is part of the Euclid Consortium and involved in the Galaxy Clusters Working Group.

PUBLICATIONS & CITATIONS

- 65 articles published in the leading peer-review international journals in the area; *Astron. & Astrophys.*; *Astrophys. J.*; *Mon. Not. R. Astron. Soc.* (21 articles as 1st author) 21 as 1st name;
- 07 articles published in other peer-review international journals (e.g. *New Astron.*, *Exper. Astron.*,.....);
- 01 book chapter, being originated from the invited talk at the JD10 of the XXIV IAU GA (2000);
- More than 40 contributions in international conferences.

These articles led to more than 2500 citations.

H-index: 26; 1st name h-index: 16; tori-index: 10.3. According SAO/NASA Astrophysics Data System (ADS), at <http://adsabs.harvard.edu/>

GRANTS

2012	ADAP (U.S.) - Co-I;
2010-11	PRIN-MIUR: "The Dark Universe and the Cosmic Evolution of Baryons: from current surveys to Euclid" (Local PI);
2010	PRIN-INAF "Architecture and Tomography of Galaxy Clusters" (Local PI);
2010	Plan Integrado Canario de I+D+i+d 2010 (Spain): "Formacion y Evolucion de Grupos Fosiles" - Co-I;
1996-2010	Co-I in several national projects: COFIN-MIUR, PRIN-INAF, ASI-contracts.

PROFESSIONAL & UNIV/RESEARCH MINISTRY SERVICES

- External referee for observational proposals (2010 Gemini telescope; 2013 ITP International Time Programme IAC-Spain);
- Referee for main journals of astrophysical area (ApJ, A&A, MNRAS; 20 papers in the last ten years);
- Referee for MIUR programs: "Futuro in Ricerca 2013", "VQR2004-2010";
- Member of Committee for a position of "Ricercatore" at the Bologna Univ. (2008);
- Member of PhD Thesis Committee (2008 Milano Bicocca; 2012 Torino; 2012 Padova).

TEACHING AND PRINCIPAL SERVICES AT THE TRIESTE UNIV.

- 2001-present Member of Teacher Board of Graduate School (PhD in Physics) – vice-director since 2013;
- 1995-present Supervisor or Co-supervisor of several PhD & MSc students (2 & 10);
- 2010/11-1013/14 COURSE: "Sistemi autogravitanti" - Dynamics of star and galaxy systems - MSc in Physics;
- 2013/14 "Fisica I con esercitazioni" - Mechanics & Thermodynamics - BSc in Chemistry;
- 2008/09-2009/10 "Fisica I con esercitazioni" - Mechanics & Thermodynamics - BSc in Chemistry;
- 2002/2003 "Processi Radiativi" - Radiative Processes - MSc in Astrophysics;
- 2001/02-2007/08 "Fisica I" – Mechanics & Thermodynamics - BSc in Environmental Sciences.

MEMBERSHIPS

- 2005-present Associate, Istituto Nazionale di Astrofisica (INAF) - Area 1 Galaxies and Cosmology.
- 2000-present Member, International Astronomical Union (IAU) - Division J Galaxies and Cosmology;

A FEW SELECTED PUBLICATIONS

- 2014 **Girardi M.**, Aguerri J. A. L., De Grandi S., D'Onghia E., Barrena R., Boschin W., Mendez-Abreu J., Sanchez-Janssen R., Zarattini S., Biviano A., and 4 coauthors; *Astron. Astrophys.*; forthcoming; "Fossil Groups Origins III. The relation between optical and X-ray luminosities";
- 2014 Bonafede A., Intema H. T., Brüggem M., **Girardi M.**, Nonino M., Kantharia N., van Weeren R. J., Röttgering H. J. A.; *Astrophys. J.*; 785; 1; "Evidence for Particle Re-acceleration in the Radio Relic in the Galaxy Cluster PLCKG287.0+32.9";
- 2014 Sartoris B., Biviano A., Rosati P., Borgani S., Umetsu K., Bartelmann M., **Girardi M.**, Grillo C., Lemze D., Zitrin A., and 32 coauthors; *Astrophys. J. Letters*; 783; 11; "CLASH-VLT: Constraints on the Dark Matter Equation of State from Accurate Measurements of Galaxy Cluster Mass Profiles";
- 2013 Boschin, W., **Girardi M.**, Barrena R.; *Mon. Not. R. Astron. Soc.*; 434, 772; "The dynamical status of ZwCl 2341.1+0000: a very elongated galaxy structure with a complex radio emission";
- 2011 Aguerri J. A. L., **Girardi M.**, Boschin W., Barrena R., Mendez-Abreu J., Sanchez-Janssen R., Borgani S., Castro-Rodriguez N., Corsini E. M., del Burgo C., D'Onghia E., Iglesias-Paramo J., Napolitano N., Vilchez J. M.; *Astron. Astrophys.*; 527; A143; "Fossil groups origins. I. RX J105453.3+552102 a very massive and relaxed system at $z \sim 0.5$ ";
- 2011 Giovannini G., Feretti L., **Girardi M.**, Govoni F., Murgia M., Vacca V., Bagchi J.; *Astron. Astrophys.*; 530; L5; "A giant radio halo in the low luminosity X-ray cluster Abell 523";
- 2011 Zhang Y.-Y., Andernach H., Caretta C. A., Reiprich T. H., Boehringer H., Puchwein E., Sijacki D., **Girardi M.**; *Astron. Astrophys.*; 526; A105; "HIFLUGCS: Galaxy Cluster Scaling Relations between X-ray Luminosity; Gas Mass; Cluster Radius; and Velocity Dispersion";
- 2008 **Girardi M.**, Boschin W., Barrena R., Ellingson E.; *Astron. Astrophys.*; 491; 379; "Cluster Abell 520: a perspective based on member galaxies. A cluster forming at the crossing of three filaments?";
- 2006 Biviano A., Murante G., Borgani S., Diaferio A., Dolag K., **Girardi M.**; *Astron. Astrophys.*; 456; 23; "On the efficiency and reliability of cluster mass estimates based on member galaxies" (106 citations);
- 2005 Demarco R.; Rosati P.; Lidman C.; Homeier N. L.; Scannapieco E.; Benítez N.; Mainieri V.; Nonino M., **Girardi M.**, Stanford S. A., Tozzi P., Borgani S., Silk J., Squires G., Broadhurst T.J.; *Astron. Astrophys.*; 432; 381; "A VLT spectroscopic survey of RX J0152.7-1357; a forming cluster of galaxies at $z = 0.837$ ";
- 2001 **Girardi M.**, Mezzetti M.; *Astrophys. J.*; 548; 79; "Evolution of the Internal Dynamics of Galaxy Clusters" (104 citations);
- 1998 **Girardi M.**, Giuricin G., Mardirossian F., Mezzetti M., Boschin W.; *Astrophys. J.*; 506; 45; "The Observational Mass Function of Nearby Galaxy Clusters" (276 citations);
- 1996 **Girardi M.**, Fadda, D., Giuricin G., Mardirossian F., Mezzetti M., Biviano, A.; *Astrophys. J.*; 457; 61; "Velocity Dispersions and X-Ray Temperatures of Galaxy Clusters" (137 citations).