
CURRICULUM VITAE

(updated 12/09/2017)

I. GENERAL INFORMATION

Maddalena Maria REGGIANI

Birth date and place: 15/09/1984 in Milan (Italy)

Marital status: married

Nationality: Italian

Scientific seniority (after PhD): 3.5 years



Postdoctoral Researcher

Space sciences, Technologies & Astrophysics Research (STAR) Institute

Université de Liège (ULg)

19c allée du Six Août, B-4000 Sart-Tilman

Tel: +32 (0)4 366 9757

Fax: +32 (0)4 366 9746

Email : mreggiani@ulg.ac.be

website: maddalenareggiani.me

II. EDUCATION

PH.D. IN PHYSICS SEPT. 2009/JAN. 2014
ETH Zürich

Title: The Companion Mass Function across the Stellar and Substellar Regime

Advisor: Prof. Dr. M.R. Meyer

M.SC. (PHYSICS) SEPT. 2006/APR. 2009
Universita' degli Studi, Milan, Italy

Title: A Study of the Star Formation History in the Orion Nebula Cluster

Advisor: Prof. Dr. G. Bertin

External Advisor: Dr. M. Robberto

B.SC. (PHYSICS) SEPT. 2003/DEC. 2006
Universita' degli Studi, Milan, Italy

Title: CMB and cosmological parameters: forecasts from future experiments in polarization.

Advisor: Prof. Dr. D. Maino

HIGH SCHOOL SEPT. 1998/JUN. 2003
Classical Languages High School "Daniele Crespi", Busto A., Italy

III. RESEARCH ACTIVITY

EMPLOYMENT

Postdoctoral Researcher, STAR Institute, Université de Liège Aug. 2015 - Present
Postdoctoral Researcher, Institute for Astronomy, ETH Zurich Feb. 2014 - Jul. 2015
Ph.D. student, Institute for Astronomy, ETH Zurich Sept. 2009 - Jan. 2014
Short-term Research Program at STScI (Baltimore, MD) Sept. 2008 - Jul. 2009

PUBLICATIONS

- As first or last author :

Reggiani, M. et al. (2016). *The VLT/NaCo large program to probe the occurrence of exoplanets and brown dwarfs at wide orbits . III. The frequency of brown dwarfs and giant planets as companions to solar-type stars.* *Astronomy and Astrophysics*, 586.

Reggiani, M. et al. (2014). *Discovery of a Companion Candidate in the HD 169142 Transition Disk and the Possibility of Multiple Planet Formation.* *Astrophysical Journal Letters*, 792, 23.

Parker, R. J., & Reggiani, M. (2013). *The binary companion mass ratio distribution: an imprint of the star formation process?* *Monthly Notices of the Royal Astronomical Society*, 432, 2378-2384.

Reggiani, M., & Meyer, M. R. (2013). *Universality of the companion mass-ratio distribution.* *Astronomy and Astrophysics*, 553.

Reggiani, M. et al. (2011). *Quantitative evidence of an intrinsic luminosity spread in the Orion nebula cluster.* *Astronomy and Astrophysics*, 534.

Reggiani, M., & Meyer, M. R. (2011). *Binary Formation Mechanisms: Constraints from the Companion Mass Ratio Distribution.* *Astrophysical Journal*, 738.

- As co-author:

Meyer, M. R.; Amara, A.; Reggiani, M.; Quanz, S. P. (2017) *M Dwarf Exoplanet Surface Density Distribution: A Log-Normal Fit from 0.07-400 AU.* *Astronomy and Astrophysics Letters*

Vigan, A. et al. (incl. Reggiani, M.) (2017). *The VLT/ NaCo large program to probe the occurrence of exoplanets and brown dwarfs at wide orbits. IV. Gravitational instability rarely forms wide, giant planets.* *Astronomy and Astrophysics*, 603.

Mawet, D. et al. (incl. Reggiani, M.) (2017). *Characterization of the inner disk around HD 141569 A from Keck/NIRC2 L-band vortex coronagraphy.* *Astronomical Journal (The)*, 153(1), 44.

Serabyn, E. et al. (incl. Reggiani, M.) (2017). *The W. M. Keck Observatory infrared vortex coronagraph and a first image of HIP79124 B.* *Astronomical Journal (The)*, 153(1), 43.

Meshkat, T. et al. (incl. Reggiani, M.) (2015). *Searching for gas giant planets on Solar system scales - a NACO/APP L'-band survey of A- and F-type main-sequence stars.* *Monthly Notices of the Royal Astronomical Society*, 453, 2533-2539.

Chauvin, G. et al. (incl. Reggiani, M.) (2015). *The VLT/NaCo large program to probe the occurrence of exoplanets and brown dwarfs at wide orbits. II. Survey description, results, and performances.* *Astronomy and Astrophysics*, 573.

Osorio, M. et al. (incl. Reggiani, M.) (2014). *Imaging the Inner and Outer Gaps of the Pre-transitional Disk of HD 169142 at 7 mm.* *Astrophysical Journal Letters*, 791.

Robberto, M. et al. (incl. Reggiani, M.) (2013). *The Hubble Space Telescope Treasury Program on the Orion Nebula Cluster.* *Astrophysical Journal Supplement Series*, 207.

Quanz, S. P. et al. (incl. Reggiani, M.) (2012). *Direct imaging constraints on planet populations detected by microlensing.* *Astronomy and Astrophysics*, 541.

- Without peer reviewing:

Femenía Castellá, B. et al. (incl. Reggiani, M.) (2016). *Commissioning and first light results of an L'-band vortex coronagraph with the Keck II adaptive optics NIRC2 science instrument.* In E., Marchetti, L., Close, & J.-P., Véran, *Adaptive Optics Systems V* (pp. 990922). Bellingham, United Kingdom: SPIE.

Absil, O. et al. (incl. Reggiani, M.) (2016). *Three years of harvest with the vector vortex coronagraph in the thermal infrared.* In C., Evans, L., Simard, & H., Takami, Ground-based and Airborne Instrumentation for Astronomy VI. Bellingham, WA: SPIE.

Reggiani, M. et al. (2014). *From the Companion Mass Ratio Distribution to the Planetary Mass Function: Using Multiple Systems to Constrain Models of Star and Planet Formation.* In D., Stamatellos, S., Goodwin, & D., Ward-Thompson, The Labyrinth of Star Formation, Astrophysics and Space Science Proceedings (pp. 25). Springer.

SELECTED TALKS AT INTERNATIONAL CONFERENCES

Direct imaging constraints on planetary companions in the transition disk around MWC 758 (Exoclipse 2017: Exploring New Worlds In the Shade, Boise University, Boise, USA) August 2017

A protoplanet candidate in HD 169142 transition disk (EWASS 2014 : European Week of Astronomy and Space Science, Geneva) July 2014

Giant Planets & BDs: no gap but local minima (Exoplanets & BDs: mind the gap, University of Hertfordshire) September 2013

From the Companion Mass Ratio Distribution to the planetary Mass Function (The Labyrinth Of Star Formation, Crete) June 2012

Whence came the field? Constraints from the Companion Mass Ratio Distribution (Do all stars form in compact clusters? From certainties to doubts, Bonn) March 2010

INTERNATIONAL CONFERENCES ATTENDED

- Exoclipse 2017: Exploring New Worlds In the Shade - 2017 - Boise University, Boise, USA (contributed talk)
- European Week of Astronomy and Space Science - 2014 - Geneva, Switzerland (contributed talk)
- Exoplanets & BDs: mind the gap - 2013 - University of Hertfordshire, Great Britain (contributed talk)
- The Labyrinth Of Star Formation - 2012 - Crete, Greece (contributed talk)
- Stellar Cluster and Associations - 2011- Granada, Spain (poster)
- The origin of stellar masses - 2010 - Tenerife, Spain (poster)

- Do all stars form in compact clusters? From certainties to doubts - 2010 - Bonn, Germany (contributed talk)
- Origins of Solar Systems - 2009 - Mount Holyoke College, South Hadley, MA (poster)
- AAS 213th Meeting - 2009 - Long Beach, CA, USA (poster)

INTERNATIONAL SCHOOLS ATTENDED

- Saas-Fee Advanced Course 42: Dynamics of Young Star Clusters and Associations - 2012 - Saas-Fee, Switzerland
- Joint Workshop and Summer School: Astrostatistics and Data Mining in Large Astronomical Databases - 2011 - La Palma, Spain

VI. RESEARCH PERIODS ABROAD

Postdoctoral Researcher, STAR Institute, Université de Liège Aug. 2015 - present

Short-term Research Program at the STScI (Baltimore, MD) Sept. 2008 - Jul. 2009

V. TEACHING EXPERIENCE

Various duties including organising and composing exercises, and delivering lessons as teaching assistant for the following courses:

- Physics 2 for non-physics students - 2014/2015
- Astrophysics 1 for physics students - 2013/2014
- Advanced Lab for physics students - 2012
- Astrophysics 1 for physics students - 2011/2012
- Astrophysics 1 for physics students - 2010/2011
- Advanced Lab for physics students - 2010
- Beginners Lab for physics students - 2009/2010

VI. SERVICE FOR THE COMMUNITY

National audience:

- “Scientifica”: Involvement in the organization of an exhibition for the Scientifica event at ETH Zurich, Zurich, Switzerland - 2011
- “Inaugural Wolf Debate”: Involvement in the organization of the first scientific Wolf Debate at ETH Zurich, Zurich, Switzerland - 2014
- “Lo Spettacolo della Fisica”: Participation in a play for kids about Physics, Milan, Italy - 2006-2008

VII. FIVE MOST RELEVANT PUBLICATIONS

Reggiani, M. et al. (2014). *Discovery of a Companion Candidate in the HD 169142 Transition Disk and the Possibility of Multiple Planet Formation.* *Astrophysical Journal Letters*, 792, 23. (64 citations)

Reggiani, M., & Meyer, M. R. (2013). *Universality of the companion mass-ratio distribution.* *Astronomy and Astrophysics*, 553. (43 citations)

Reggiani, M. et al. (2011). *Quantitative evidence of an intrinsic luminosity spread in the Orion nebula cluster.* *Astronomy and Astrophysics*, 534. (69 citations)

Reggiani, M., & Meyer, M. R. (2011). *Binary Formation Mechanisms: Constraints from the Companion Mass Ratio Distribution.* *Astrophysical Journal*, 738. (65 citations)

Reggiani, M. et al. (2016). *The VLT/NaCo large program to probe the occurrence of exoplanets and brown dwarfs at wide orbits . III. The frequency of brown dwarfs and giant planets as companions to solar-type stars.* *Astronomy and Astrophysics*, 586. (11 citations)

VIII. POSSIBLE EXTERNAL REFEREES

Prof. Dr. Michael MEYER

University of Michigan, Department of Astronomy

1085 S. University, Ann Arbor, MI 48109, USA

Tel.: +1 734-764-7846 Email: mrmeyer@umich.edu

Dr. Olivier ABSIL

Space sciences, Technologies & Astrophysics Research (STAR) Institute, ULg

19c allée du Six Août, B-4000 Sart-Tilman , Belgium

Tel: +32 (0) 4-366.97.24 Email: absil@astro.ulg.ac.be

Dr. Sascha QUANZ

Institut für Astronomie - ETH Zürich

HIT J 23.4 , Wolfgang-Pauli-Str. 27, CH-8093 Zürich, Switzerland

Tel.: +41 (0) 44 633 28 30 Email: quanzs@astro.phys.ethz.ch

Dr. Gaël CHAUVIN

Institut de Planetologie et d'Astrophysique de Grenoble (IPAG)

BP 53, 38041 Grenoble Cedex 9, France

Tel.: +33 (0) 476 635 886 Email: gael.chauvin@obs.ujf-grenoble.fr

Prof. Dr. Dimitri MAWET

Astronomy Dept. MC 249-17 Caltech,

1200 E. California Blvd. Pasadena, CA 91125

Tel.: +1 626-395-1452 E-mail: dmawet@astro.caltech.edu