Personal information

Surname / First name	**Ziosi Brunetto Marco**
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Nationality	Italian
Date of birth	03/05/1985

Current Position: PhD student since 01/2012 at Università degli Studi di Padova - Dipartimento di Fisica e Astronomia
PhD advisors: Dr. Michela Mapelli (INAF-OAPd) and Prof. Giuseppe Tormen (University of Padova)
PhD Fellowship funded by: Strategic Research Project AACSE - Algorithms and Architectures for Computational Science and Engineering

Education

2012-present: PhD School in Astronomy - Dipartimento di Fisica e Astronomia (Università degli Studi di Padova), Research project title: **"The impact of stellar evolution and dynamics on the formation of compact-object binaries"**, supervisors: Dr. Michela Mapelli and Prof. Giuseppe Tormen

2007-2011: Master Degree Thesis in Astronomy - Dipartimento di Fisica e Astronomia (Università degli Studi di Padova), (108/110): **"Halo-matter cross-correlation in cosmological simulation"**, supervisors: Prof. Giuseppe Tormen and Prof. Ravi K. Sheth

2004-2007: Bachelor Degree Thesis in Astronomy - Dipartimento di Fisica e Astronomia (Università degli Studi di Padova), (103/110): **"Studio del profilo dei vortici ottici con diverso momento angolare"** (Characterization of optical vortexes with different angular momentum), supervisors: Prof. Cesare Barbieri, Dr. Fabrizio Tamburini, Dr. Gabriele Anzolin

Teaching experience

2012-2013: Teaching assistant - Dipartimento di Fisica e Astronomia (Università degli Studi di Padova), Mathematical analysis

2012-2013: Teaching assistant - Dipartimento di Fisica e Astronomia (Università degli Studi di Padova), Python course

Grants

2013: 1000 EUR to attend the Gravasco IHP trimester "N-body gravitational dynamical systems From N=2 to infinity..."

Accepted computational proposals

2014: "Star cluster formation through merger of sub-clusters", 50.0k CPU hours on IBM PLX cluster @ CINECA, PI: Mapelli, CO-I: Ziosi and 3 other COIs

2013: "Investigating the statistics and parameter space of double compact object binaries in young star clusters", 50.0k CPU hours on GPU cluster EURORA, IBM PLX cluster and IBM Blue Gene/Q Fermi @ CINECA, PI: Ziosi, 2 COIs

2013: "Making very massive stars through stellar collisions", 50.0k on GPU cluster EURORA and IBM PLX cluster @ CINECA, PI: Mapelli, CO-I: Ziosi and 2 other COIs

2012 "The violent life of the Galactic Centre", 281.6k CPU hours on IBM PLX and on the IBM Blue Gene/Q Fermi cluster @ CINECA, PI: Mapelli, CO-I: Ziosi and 2 other COIs

2012 "Computational Frontiers of Black Hole Dynamics", 50.0k CPU hours on IBM PLX cluster @ CINECA, PI: Ripamonti, CO-I: Ziosi and 2 other COIs

Schools and Workshops

2014

- **Perspectives of GPU computing in Physics and Astrophysics**, Dep. of Physics of Sapienza - Rome, 15-17 Semptember 2014 (poster)
- **Stellar N-body Dynamics**, Sexten (Italy), 8-12 September 2014 (poster)
- **Astro-GR@Rome**, Monteporzio Catone (Rome), 14-18 July 2014
- **MODEST 14 - The dance of stars: dense stellar systems from infant to old**, Bad Honnef Physics Center (Germany), 2-6 June 2014 (poster)

2013

- **Workshop on Dynamics & Kinetic theory of self-gravitating systems**, Gravasco IHP trimester "N-body gravitational dynamical systems From N=2 to infinity...", Paris, 4-8 November 2013 (contributed talk)
- **Seminar on Galactic Dynamics**, Gravasco IHP trimester "N body gravitational dynamical systems From N=2 to infinity...", Paris, 21 October-1 November 2013
- **Workshop on High Performance Scientific Computing**, Strategic Research Project AACSE, Departement of Information Engineering - Padova, 9 Semptember 2013
- **PhD Summer School on High Performance Scientific Computing**, Strategic Research Project AACSE, Departement of Information Engineering - Padua, 16-18 Semptember 2013 (contributed talk)
- **INFN School Of Statistics**, Vietri sul Mare (Italy), 3-7 June 2013
- **School on Gravitational Waves, neutrinos and multiwavelenght e.m. observations: the new frontier of Astronomy**, Monteporzio Catone (Rome), 10-15 April 2013

2012

- **IMPRS Summer School on Computational Astrophysics**, Heidelberg, Germany, 10-14 September 2012
- **International School of Astrophysics on the Fundamental Cosmic distance scale and the Transient Sky**, Teramo, Italy, 11-15 June 2012 (contributed talk)
- **Summer School of Parallel Computing**, CINECA (Bologna), 2-13 July 2012
- **Introduction to C language for scientific programming**, CINECA (Bologna), 17-18 May 2012

2011

- **PhD Summer School on Algorithms and Architectures for Computational Science and Engineering**, Departement of Information Engineering - Padua, 12-16 Semptember 2011 (contributed talk)
- **Workshop on Visualization of Large scientific Data**, CINECA (Bologna), 14-15 June 2011
- **Python for computational science**, CINECA, 16-18 May 2011
- **Introduction to GPGPU and CUDA programming**, CINECA (Bologna), 27 April 2011

Publications

- Ziosi B. M., Mapelli M., Branchesi M., Tormen G., 2014, MNRAS, 441, 3703Z
- Branchesi M. et al., C7 multi-messenger astronomy of GW sources, 2014, General Relativity and Gravitation, 46, 1771

Language skills

Italian (Mother tongue), English (good)

Computer skills

OSs	Linux (expert), MacOSX (advanced), Windows (advanced)
Scripting/Programming Languages	Python (advanced), Go (good), Bash (good), C/C++ (good), Matlab/Octave (good), Fortran (base), IDL (base)
Data Analysis/Plotting tools	Veusz (good), Matplotlib/Pylab (advanced), Supermongo (base), Gnuplot (base), IDL (base), IRAF (base)
Markup Languages/Web	LaTeX (expert), HTML (base), Javascript (base)
Graphics	Inkscape (good), Gimp (good), ImageMagick (good), Blender (base)
Presentation	Beamer, Sozi/Inkscape, Prezi, PowerPoint
Office/Internet	MSOffice, LibreOffice/OpenOffice, Chrome, Internet Explorer, Firefox, Opera, Outlook, Thuderbird
Others	Git (good), MySQL (base)

Signature