

Curriculum vitae - Alexandro Saro

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Date of birth: 22nd August 1980

Research interests

- Properties of the galaxy populations in large cosmological hydrodynamical simulations
- Comparison between semi-analytic models and direct hydrodynamical simulations
- Prediction for Lyman alpha emitters in cosmological hydrodynamical simulations

Studies and career path

- Diploma of secondary school in Electronics and Telecommunications: July 1999, Istituto Tecnico Industriale Statale A. Malignani di Udine - ITALY, 100/100.
- Bachelor Degree – Physics: 26 September 2002, Dipartimento di Fisica dell'Università di Trieste, 110/110 e lode (supervisor: Prof. P. Monaco). Thesis title: The Cosmological Constant.
- "Prof. Paolo Poropat Bachelor Degree" prize 2003.
- Winner of an Erasmus Project (10 months scholarship) in the year 2002-2003 at the University of Manchester.
- Master Degree – Astrophysics: 7 November 2005, Università di Trieste, 110/110 e lode (supervisor: Prof. S. Borgani). Thesis title: Properties of Galaxies in Cosmological Hydrodynamical Simulations.
- November 2005: 3 years Ph.D. fellowship on Cosmology at the University of Trieste. Supervisor Prof. Stefano Borgani.
- Winner of a 5 months European EARA Marie Curie fellowship in the year 2006-2007 at the Max-Planck-Institut für Astrophysik, Garching bei München.
- Ph.D. in Astrophysics: 3 April 2009, Università di Trieste (supervisor: Prof. S. Borgani). Thesis title: Cluster galaxy populations in cosmological hierarchical models.
- 2009: 18 months post-doctoral position at the University of

- Trieste: "Cosmological models of galaxy formation: semi-analytic methods and numerical simulations", advisor Prof. S. Borgani.
- Referee for the Astrophysical Journal.

Skills

- Programming and computing languages: IDL, C, FORTRAN, LATEX, Perl, Unix shell script
- Languages: Italian (mother tongue), English (advanced), Spanish (intermediate) and French (basic)

Publication List

Refereed publications:

- Title: "Properties of the galaxy population in hydrodynamical simulations of clusters". Authors: **A. Saro**, S. Borgani, L. Tornatore, K. Dolag, G. Murante, A. Biviano, F. Calura & S. Charlot. 2006, MNRAS 373, 397
<http://adsabs.harvard.edu/abs/2006MNRAS.373..397S>
- Title: "Evolution of the metal content of the intracluster medium with hydrodynamical simulations". Authors: Fabjan D., Tornatore L., Borgani S., **Saro A.**, Dolag K., 2008, MNRAS 386, 1265
<http://adsabs.harvard.edu/abs/2008MNRAS.386.1265F>
- Title: "The effect of gas dynamics on semi-analytic modelling of cluster galaxies". Authors: **Saro, A.**; De Lucia, G.; Dolag, K.; Borgani, S., 2008, MNRAS 391, 565
<http://adsabs.harvard.edu/abs/2008MNRAS.391..565S>
- Title: "Simulating the formation of a protocluster at $z \gg 2$ ". Authors: **Saro, A.**; Borgani, S.; Tornatore, L.; De Lucia, G.; Dolag, K.; Murante, G., 2008, MNRAS 392, 795
<http://adsabs.harvard.edu/abs/2009MNRAS.392..795S>
- Title: "Simulating the effect of AGN feedback on the metal enrichment of galaxy clusters". Authors: Fabjan D., Borgani S., Tornatore L., **Saro A.**, Murante G., Dolag K., 2010, MNRAS 401, 1670
<http://adsabs.harvard.edu/abs/2010MNRAS.401.1670F>
- Title: "Lyman Alpha Emitter Evolution in the Reionization Epoch". Authors: Dayal P., Ferrara A., **Saro A.**, Salvaterra R., Borgani S., Tornatore L., 2009, MNRAS 400, 2000
<http://adsabs.harvard.edu/abs/2009MNRAS.400.2000D>
- Title: "The cool side of Lyman Alpha Emitters". Authors: Dayal P., Ferrara A., **Saro A.**, 2010, MNRAS 402, 1449
<http://adsabs.harvard.edu/abs/2010MNRAS.402.1449D>
- Title: "Semi-analytic and SPH galaxies: are results consistent?". Authors: **Saro, A.**; De Lucia G.; Borgani, S.; Dolag, K., arXiv:1001.3115, MNRAS accepted.
<http://adsabs.harvard.edu/abs/2010arXiv1001.3115S>
- Title: "Photometric and clustering properties of hydrodynamical galaxies in a cosmological volume: results at $z=0$ ". Authors: Nuza, S. E., Dolag, K., **Saro A.**, 2010, arXiv:1004.4642, MNRAS accepted
<http://adsabs.harvard.edu/abs/2010arXiv1004.4642N>