

CURRICULUM VITAE ET STUDIORUM

Gabriella De Lucia

Contact Information:

INAF-Osservatorio Astronomico,
via G.B. Tiepolo 11,
34143, Trieste
tel: +39-040-3199-128, fax: +39-040-309418
E-mail address: delucia@oats.inaf.it

Education:

- 2004** *Doctor Rerum Naturalium*, Ludwig-Maximilian Universität, München
Thesis title: *Evolution of galaxies in clusters*
Advisors: Prof. S. D. M. White, Dr. G. Kauffmann
- 2000** *Laurea in Fisica*, University “Federico II”, Naples; final grade: 110/110 *cum laude*
Thesis title: *Modelli evolutivi di galassie ellittiche a basso redshift*
Advisors: Prof. M. Capaccioli, Dr. M. Arnaboldi
- 1994** *Diploma di maturità scientifica*; final grade: 60/60

Positions held:

- 2016-present** Senior Researcher (‘Primo Ricercatore - equivalent to Associate Professor) at INAF - Astronomical Observatory of Trieste (OATs)
- 2012-2016** Researcher (permanent) at INAF-OATs
- 2009-2014** Senior Researcher (fixed term position funded by ERC) at INAF-OATs
- 2004-2009** Long term PostDoctoral Fellowship at the Max-Planck-Institut für Astrophysik (MPA), Garching bei München, Germany
- 2001-2004** PhD student at MPA
- 2000** Shorth Research contract at the Astronomical Observatory of Capodimonte, Naples, Italy

Honours, distinctions, and Awards:

- 2013** MERAC Prize for the Best Early Career Researcher in Theoretical Astrophysics, awarded by the European Astronomical Society
- 2012** Italian National University Habilitation (Associate Professor)
- 2011** Order of Merit (Officer) of the Italian Republic, awarded by the President of the Italian Republic
- 2008** European Research Council (ERC) *Starting Independent Researcher Grant* (about 300 proposals funded out of more than 9000 submitted across all research fields - $\sim 3\%$ success rate)
- 2007** Zwicky Prize Fellowship (declined)
- 2007** NOVA Fellowship (declined)
- 2005** Honourable mention from the Italian Astronomical Society (*Premio Tacchini*) for the best PhD thesis in 2004
- 2001** PhD fellowship (three years) from the *International Max-Planck Research School in Astrophysics*. Completion of the School with *distinction* in 2004.

Main Grants and funding:

- 2017** **Node coordinator** of the *Latin American Chinese European Galaxy Formation Network*, exchange programme funded by EU (PI: C. Baugh), 1250 kEUR

- 2015** co-I of the project *Glittering Kaleidoscopes in the sky, the multifaceted nature and role of galaxy clusters*, funded by INAF (PI: M. Nonino), 190 kEUR
- 2014** **PI** of the project *Galaxy formation and evolution with the Square Kilometre Array*, funded by INAF through a PhD fellowship, 56 kEUR
- 2014** **PI** of the project *Towards the next generation of galaxy formation models*, funded by the MERAC foundation, 146 kEUR
- 2012** co-I of the project *The Universe in a box: multi-scale simulations of the cosmic structures*, funded by INAF (PI: G. Murante), 96 kEUR
- 2012** co-I of the project *Evolution of cosmic baryons: astrophysical effects and growth of cosmic structure*, funded by MIUR (PI: S. Borgani), 266 kEUR
- 2011** **PI** of the Trieste Research Unit for the project *From the dawn of galaxy formation to the peak of the mass assembly*, funded by INAF (PI: G. Zamorani), 170 kEUR
- 2009** co-I of the project *VIPERS: The large-scale structure and growth rate of the Universe at $z \sim 1$ from a survey of 100,000 galaxy redshifts* funded by INAF (PI: L. Guzzo), 245 kEUR
- 2008** **PI** of an European Research Council (ERC) *Starting Independent Researcher Grant*, 750 kEUR

Teaching and Supervising:

- currently** supervising one postdocs (L. Xie) and one PhD student (A. Zoldan). Postdocs supervised in the past: A. Villalobos, M. Hirschmann, O. Cucciati, U. Maio, F. Fontanot. PhD students supervised or co-supervised in the past: E. Contini, A. Saro, L. Wang, J. Wang, M.A. Campisi, Q. Guo, M.E. de Rossi
- 2014** Lecturer on *Galaxy formation and evolution* at the Eighth TRR33 Winter School (for PhD students), Passo del Tonale, Italy
- 2012-2013** Lessons on *Cosmology* for undergraduate students, University of Trieste
- 2012** Lecturer at the Graduate Days in Heidelberg (for PhD students)
- 2009-2010** PhD lectures *Formation and Evolution of Galaxies in a hierarchical Universe*, SISSA, Trieste
- 2008** PhD lectures on *Theoretical scenarios of galaxy formation*, National PhD School in Astrophysics, Asiago, Italy
- 2006** Lectures on *semi-analytic models*, MAGPOP Summer School, Budapest, Hungary
- 2005** Workshop on semi-analytic methods, Garching bei München, Germany

Professional Activities:

- 2017** Expert Reviewer for the ERC Starting Grant 2016 call
- 2016** Expert Reviewer for Physics Discovery Grants for the Natural Sciences Research Council of Canada
- 2015** Expert Reviewer for the ERC Starting Grant 2015 call
- 2015** External PhD Examiner for the University of Durham
- 2014-2016** Member of the Time Allocation Committee for the telescopes TNG/LBT/REM
- 2013 to date** Member (as external expert) of the teachers board of the PhD School in Physics at the University of Trieste
- 2013** Expert Reviewer for the ERC Advanced 2013 call
- 2012 and 2013** Member of the ESO Observing Programmes Committee (periods 91 and 92)
- 2011 and 2012** Expert external reviewer for the *Agence Nationale de la Recherche* (ANR)
- 2011** *External reviewer* for the United States-Israel Binational Science Foundation
- 2010** *External reviewer* for the 2011 FONDECYT (National Fund for Scientific and Technological Development) National Research Funding Competition
- 2010** Member of the Cycle 18 HST review panel

- 2010** Expert external reviewer for the Netherlands Organisation for Scientific Research (NWO)
- 2009** Expert reviewer for the Anne McLaren Fellowship scheme 2009/10 and for the Peter and Patricia Gruber Foundation Fellowship 2009
- 2009** Organizer of the *Group Meeting* (weekly informal group seminar), Astronomical Observatory of Trieste
- 2005 to date** *Peer Reviewer* for *Astronomy & Astrophysics* and *Astrophysical Journal*
- 2005** *Reviewer* for *FWF Austrian Science Fund*
- 2004 to date** *Peer Reviewer* for *Monthly Notices of the Royal Astronomical Society*
- 2004-2008** Organizer of the *Cosmology Seminar*, Max-Planck Institut für Astrophysik
- 2001-2003** Organizer of the students *Journal Club*, Max-Planck Institut für Astrophysik

Organization of international conferences and workshops:

- 2018** **co-Chair** of the Scientific Organizing Committee (SOC) for the *European Week of Astronomy and Space Science*, to be held in Liverpool, UK, April 36
- 2017** Member of the SOC for the conference *The galaxy ecosystem. Flows of baryons through galaxies*, to be held in Garching bei Muenchen, Germany, July 24-28
- 2017** Member of the SOC for the conference *Galaxy Clusters 2017. Theory, observations & future developments*, to be held in Santander, Spain, July 3-7
- 2017** **co-Coordinator** of the international workshop *In & Out. What rules the Galaxy Baryon Cycle?*, to be held at the Munich Institute for Astro- and Particle Physics, Garching bei Muenchen, Germany, 26 June - 21 July
- 2017** Member of the SOC for the conference *The remarkable life of a brightest cluster galaxy*, Sesto val Pusteria, Italy, February 20-24
- 2015** Member of the Scientific Organizing Committee (SOC) for the conference *In the footsteps of galaxies: tracing the evolution of environmental effects*, Soverato, Italy, September 7-11
- 2015** Member of the SOC for the conference *The Many Pathways of Galaxy Growth*, Prato, Italy, June 22-26
- 2014** Member of the SOC for the conference *Evolving Galaxies in Evolving Environments*, Bologna, Italy, September 5-19
- 2014** Member of the SOC for the IAU Symposium 311 *Galaxy Masses as Constraints of Formation Models*, Oxford, UK, July 21-25
- 2014** Member of the SOC for the conference *Future Directions in Galaxy Cluster Surveys*, Paris, France, June 23-27
- 2013** Member of the SOC for the conference *Tracing Cosmic Evolution with Clusters of Galaxies*, Sesto val Pusteria, Italy, July 1-5
- 2013** **Co-Chair** (with S. Weinmann e A. Muzzin) of the organization of the workshop *What Regulates Galaxy Evolution?*, Leiden, the Netherlands, April 22-26
- 2012** **Co-Chair** (with O. Cucciati) of the organizing committee for the conference *The physics of Star Formation and its Role in Galaxy Evolution*, Trieste, Italy, October 16-19
- 2012** Member of the organizing committee for the workshop *Interacting Galaxies and Binary Quasars: A Cosmic Rendezvous*, Trieste, Italy, April 2-5
- 2010** Member of the SOC for the conference *Environment and the Formation of galaxies: 30 years later*, Lisbon, Portugal, September 6-10
- 2009** Member of the SOC for the conference *Galaxy Clusters in the Early Universe*, Pucon, Chile, November 9-12

- 2009 Chair** of the organizing committee for the workshop on *Galaxy Formation*, Sesto val Pusteria, Italy, July 13-17
- 2005 Co-Chair** of the organizing committee of the conference *From Simulations to Surveys*, Ringberg Castle, Germany, June 26-July 1

Selected reviews/talks at International Conferences (last six years):

- 2017** *Formation and evolution of the most massive (central) galaxies in hierarchical models*, February 20-24, Sesto val Pusteria, Italy; **invited talk**
- 2016** *Semi-analytic modelling of group satellite galaxies*, December 12-15, Paris, France; **invited review**
- 2016** *The galaxy's life-cycle. From activity to quiescence, and back, across cosmic time*, October 24-28, Venice, Italy; **invited final remarks**
- 2016** STScI Spring Symposium on *What Shapes Galaxies?*, April 25-28, Baltimore, USA; **invited review**
- 2015** *In the footsteps of galaxies: tracing the evolution of environmental effects*, Soverato, Italy, September 7-11; **invited review**
- 2015** *The Life and Death of Satellite Galaxies*, Leiden, the Netherlands, April 28- May 1; **invited review**
- 2015** *The Most Massive Galaxies and their Precursors*, Sydney, Australia, February 9-12; **invited talk**
- 2014** *The Universe of digital sky surveys*, Naples, Italy, November 25-28; **invited review**
- 2014** *The Life and Times of Galaxies - A celebration of Alan Dressler's career*, Zion National Park, Utah (USA), September 9-12; **invited review**
- 2014** *Future Directions in Galaxy Cluster Surveys*, Paris, France, June 23-27; **invited review**
- 2014** *Multiwavelength surveys: Galaxy Formation and Evolution from the Early Universe to Today*, Dubrovnik, Croatia, May 12-16; **invited talk**
- 2013** *European Week of Astronomy and Space Science*, Turku, Finland, July 8-12; **plenary speaker - MERAC lecture**
- 2012** *Growing up at high-z: from proto-clusters to galaxy clusters*, Madrid, Spain, September 10-13 Settembre; **invited review**
- 2011** *Surveys & Simulations - The Real and the Virtual Universe - Annual meeting of the German Astronomical Society*, Heidelberg, Germany, September 19-23; **invited review**
- 2011** *Groups and Clusters of Galaxies: Confronting Theory with Observations*, Leiden, the Netherlands, July 25-29; **invited talk**
- 2011** *Fornax, Virgo, Coma et al. stellar systems in nearby high density environments*, Garching bei München, Germany, June 27- July 1; **invited talk**
- 2011** *CosmoFirstObjects: International Meeting on Cosmology beyond Redshift $z \sim 3$* , Marseille, France, May 3-6; **invited review**
- 2011** *Ringberg Workshop on Galaxy Evolution*, Ringberg Castle, Germany, April 17-22; **invited talk**

Selected Seminars and Colloquia (last six years):

- 2017** Università degli Studi Roma Tre, Dipartimento di Matematica e Fisica: *Modelling galaxy formation and evolution in a hierarchical context - successes and open problems*, April 11
- 2015** University of Burdwan, India (via Skype): *Theoretical models of galaxy formation and evolution. Latest developments and future directions*, June 10
- 2015** Laboratoire d'Astrophysique de Marseille, Marseille, France: *Theoretical models of galaxy formation and evolution. Latest developments and future directions*, June 5
- 2015** Institut d'Astrophysique de Paris, Paris, France: *Elemental abundances in Milky-Way like galaxies from a hierarchical model of galaxy formation*, May 21
- 2015** Universitäts-Stenwarte München, Munich, Germany: *A hierarchical galaxy formation model - latest developments and future directions*, March 18

- 2014** INAF - Astrophysical Observatory of Arcetri, Florence, Italy: *A hierarchical galaxy formation model - latest developments and future directions*, October 23
- 2013** Observatoire de la Cote d'Azur, Nice, France: *The role of primordial conditions and environmental effects on cluster and group galaxies*, June 11
- 2012** Max-Planck-Institut für Astronomie, Heidelberg, Germany: *Recent progress and open problems in galaxy formation and evolution*, October 11
- 2012** Institute of Astro- and Particle Physics, Innsbruck, Austria: *The environmental history of group and cluster galaxies in a Λ CDM Universe*, February 27
- 2011** Osservatorio Astronomico di Roma, Roma, Italy: *Modelling the formation and evolution of galaxies in hierarchical cosmologies*, February 22

Publications:

145 refereed publications (18 as first author) published in main international journals. More than 10900 citations, 20 papers (8 of which as first author and 2 as second author) with more than 100 citations (h-index: 49). Two invited book chapters.