

CURRICULUM VITAE OF LICIA VERDE

Contact Address: Instituto de Ciencias del Cosmos (ICCUB)
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 Born: Venice (Italy) 14 October 1971
 Citizenship: Italian

1. CAREER

Academic Positions

September 2007 – present: **ICREA professor**¹

September 2013 – September 2016: **Professor II**², Institute of theoretical astrophysics, University of Oslo, Oslo, Norway

July 2003– August 2007: **Faculty**, Dept. of Physics and Astronomy, University of Pennsylvania, PA, USA

July 2002–June 2003: **Chandra Fellow** and **Spitzer Fellow**, Dept. of Astrophysical Sciences, Princeton University, Princeton, NJ, USA.

July 2001–June 2002: **Research Associate**, Physics and Astronomy department, Rutgers University, NJ, USA.

September 2000 – June 2001: **Research Associate**, Dept. of Astrophysical Sciences, Princeton University, Princeton, NJ, USA

Visiting Positions (past 10 years)

Imperial College London Academic Visitor (2017–2018)

Harvard University Edward, Frances, and Shirley B. Daniels Fellow, Radcliffe Institute for Advanced Study, USA, Sept 2015–May 2016

Harvard University ITC, Harvard Smithsonian Center for Astrophysics, USA, Sep. 2015–May 2016

Imperial College London Center for Inference and Cosmology, UK, Visitor, July-August 2015.

Imperial College London Center for Inference and Cosmology, UK, Visitor, August 2014.

CERN Theory division, Associate, CH, (Sabbatical year) Sep 2012–July 2013.

IPMU Institute of Physics and Mathematics of the Universe, Kashiwanoha, Japan, Visitor, 8–28 March 2010.

CERN Theory division, CH, visitor, 1–30 September 2009

Princeton University, Visiting Senior Research Fellow, Dept. Astrophysical Sciences, Princeton, NJ, USA (Jan 2008, Nov 2008, April 2009)

Princeton University, Dept. Astrophysical Sciences, Princeton, NJ, USA (June 2007–August 2007)

Education

October 1996 – August 2000: **PhD student, Marie Curie Fellow** at the Institute for Astronomy, University of Edinburgh. Edinburgh, UK.

October 1990 – July 1996: **Laurea degree in Physics** Università di Padova, Padova, IT

January 1996– June 1996: **Exchange student** at the University of Edinburgh, Edinburgh, UK

October 1994– June 1995: **Exchange student** at the University of Edinburgh, Edinburgh, UK

¹Institució Catalana de Recerca i Estudis Avançats www.icrea.cat, Barcelona (Spain)

²Equivalent to adjunct professor

Degrees

PhD, University of Edinburgh. Thesis entitled “ Ω , Bias and Primordial Non-Gaussianity”, supervisor: *Prof. Alan F. Heavens* (February 2001)

Laurea degree in Physics, University of Padova. Thesis entitled “Large-scale bias in the Universe”. Supervisors *Prof. Sabino Matarrese, Prof. Alan Heavens*. Graded 110/110 cum laude (July 1996)

“Maturità classica”, Liceo Classico Marco Polo, Venice, IT (July 1990)

Languages

Italian (mother tongue), English (fluent), Spanish (fluent), French (basic)

Grants (past 5 years only)

BePreSysE, European Research Council (ERC Consolidator grant, IDEAS program), 2017-2022, PI. (1.83M Euros)

Two Marie Curie fellowships (2015 call, researchers to start in 2016-2017) Advisor of researcher.

Beatriu de Pinos fellowship (2015-2017) Advisor of researcher.

CoI and “guarantor” of the Maria de Maeztu distinction awarded to the Instituto de Ciencias de Cosmos (2015-2019) 2M Euros

Plan nacional grant (2015-2019) 227,480 EUR, PI, + one PhD student grant.

Royal Society International Exchange, “Cosmology through CMB, Lensing And Surveys: Statistics, Inflation and Clustering”, Overseas PI, 12,000 GBP (Aug 2014- Aug 2016)

University of Barcelona grant to participate in the Horizon 2020 call, PI, 3,000 Euros (2014)

Salvador de Madariaga mobility grant (2013)

PhysCos, PI, AGAUR (2014–2016), 15,000 Euros.

COM SOM (Cosmology and the Origin of Matter, Sabor y Origen de la Materia), Plan nacional 2011-2014, PI 150,000 Euros

University of Barcelona grant for internationalisation of University research, 2010, PI. 4,000 Euros

Phys.LSS, European Research Council (ERC Starting grant, IDEAS program), 2009-2016, PI. (1.4M Euros)

Accion Complementaria Plan Nacional Maximizing the scientific return of future galaxy redshift surveys, 2009–2012, PI, 42,000 Euros.

Maximizing the scientific return of future galaxy redshift surveys, Plan nacional 2008-2011, PI, 180,000 Euros

Marie Curie (IRC), PI, 2007–2011 (100,000 Euros)

Honors and Awards

2018 Breakthrough Prize in Fundamental Physics with the WMAP team

Narcis Monturiol Medal (2017) “to honour individuals and organisations that made outstanding contributions to scientific and technological development in Catalunya”.

ERC Consolidator grant (2016)

Thompson Reuters ISI Highly cited researcher (2015) –*The top 1% most cited researchers in the field*

Radcliffe Institute of advanced study fellowship (2015) Edward, Frances, and Shirley B. Daniels Fellow.

Young Academy of Europe (2015–present)

Gruber Cosmology prize 2012.

Inclusion in academianet: a database of profiles of excellent female researchers from all disciplines (2010)

ERC starting grant (2009)

NASA group achievement award (2007) for the results of the WMAP mission

NASA group achievement award (2004) for the results of the WMAP mission

Chandra Fellowship (2002)

Spitzer fellowship (2002)

Amelia Earhart Fellowship of Zonta International foundation (1997)

Prize “Premio STET Guglielmo Reis Romoli” from *Gruppo STET* (1997)

Foundation Blanceflor-Boncompagni Ludovisi nee’ Bildt Award (1997)

Dewar & Ritchie Studentship from the University of Edinburgh (1996)

Performance prize for Erasmus students from Aldo Gini Foundation (1995)

Computational and Observational Resources

Supercomputing allocations at NCSA 2005-2008 30,000 SU, renewed twice.

Keck telescope, CoI “Cosmic clocks” project, 2 nights in 2006, 2 nights in 2007, 4 nights in 2008

2. RESEARCH INTERESTS

The subjects I have been working on are:

Cosmology; statistics of the cosmic microwave background fluctuations, in particular I have been directly involved with analysis and interpretation of the Wilkinson Microwave Anisotropy Probe satellite (WMAP) data, and I have been part of the Atacama Cosmology Telescope (ACT) science team; Dark energy: I am part of the Sloan Digital Sky Survey III (SDSSIII) & Baryon Oscillations Spectroscopic Survey (BOSS) of the Dark Energy Spectroscopic Instrument (DESI) and Euclid collaborations; use of higher order correlations in cosmology and their applications to galaxy redshift surveys in particular the Anglo-Australian two-degree galaxy redshift survey (2dFGRS) and BOSS; statistical analysis of large-scale structure; relationship between the clustering properties of visible matter and of the dark matter; nature of the primordial fluctuations: the initial conditions for cosmological structure formation; galaxy clusters scaling relations; dark energy; neutrino properties from cosmology; problems for the Λ CDM paradigm.

Major projects I have been involved with are (in chronological order):

- I have measured the relationship between the clustering properties of visible matter and of the dark matter from the 2dFGRS catalog. This work became one of the Two-degree-Field Galaxy Redshift Survey team papers. This measurement is particularly important in cosmology as the theory predicts the clustering properties of the dark matter but we mostly trace the large-scale structure via the clustering of visible matter. This measurement led to a determination of the density parameter of the Universe independent from the CMB.
- Between 2002 and 2006 I have been a member of the Wilkinson Microwave Anisotropy Probe (WMAP) science team and I have been directly involved in the analysis, interpretation and the release of the observations of the WMAP satellite. Two articles that reported the WMAP results in 2003 have been the first and second most cited papers in astronomy in 2003 and 2004 and the second and the third most cited papers in physics and in astronomy in the year 2003, 2004 and 2005, surpassed only by “Review of particle physics. Particle data group”. (source SLAC SPIRES).
- I have been a member of the Atacama Cosmology Telescope (ACT) science team (first light June 2007) until 2010.
- Between 2004 and 2007 I have been member of the team of a proposed NASA space mission as part of JDEM (Joint Dark Energy Mission): Advanced Dark Energy Physics Telescope (ADEPT).
- Membership of SDSS III and BOSS collaboration. (www.sdss3.org), I have been leading the first measurement and interpretation of the higher order statistics of BOSS galaxies (July 2014).
- Membership of EUCLID (<http://sci.esa.int/science-e/www/area/index.cfm?fareaid=102>).

- Membership of DESI (Dark energy spectroscopic instrument)
- I am part of the steering committee and science working group of CORe+ (Cosmic Origins Explorer) a proposed European space mission for CMB polarimetry measurements <http://www.core-mission.org>

3. INVITED TALKS & SEMINARS, COLLOQUIA & LECTURES

Invited talks and seminars (past 4 years) *Total of 90 over the past 10 years.*

“Neutrinos and cosmological observations” Colloquium, University of Oxford, Physics Department, UK, April 2018

“Unconscious bias in cosmology” Colloquium, MIT Physics department, USA, March 2018

“ Beyond precision Cosmology and the trouble with H_0 ” Colloquium, MPIKP, Heidelberg, DE, Oct 2017

“What does Bayes has to say about neutrino hierarchy and tensions in cosmology?” at Bayes forum, Max Planck Institute for Astrophysics, Garching (Germany), Sep. 2017

“Neutrino properties from cosmology” Plenary talk at Cosmo17, Paris, August 2017

“Fine tuning and betting odds in the dark sector: from the cosmological constant to neutrinos. ” Invited talk at “the Physics of Fine Tuning”, Crete, June 2017

“Concordance Cosmology turns 18” Invited talk at Gordon Research Conference in “String theory and Cosmology”, Lucca, IT, May 2017

“Neutrino properties from Cosmology” Invited talk at “Origins of Mass 2017” Odense, Denmark May 2017

“Beyond precision cosmology: some examples”, seminar at Yale University, Feb 2017

“Precision cosmology and beyond” New Directions in Theoretical Physics 2 Higgs Centre for Theoretical Physics, Edinburgh UK, Jan 2017

“Precision cosmology and beyond” Colloquium ICC, Barcelona, Nov 2016; Neils Bohr International Academy seminar, Copenhagen, Nov 2016

“Precision cosmology, what next?” Simons Center for Computational Astrophysics, Oct 2016, New York (USA)

“Robust constraints on neutrino properties from galaxy surveys” Princeton University, Nov 2015, Dartmouth College, March 2016, Case Western Research University, March 2016.

“Robust constraints on neutrino mass”, Harvard University, Nov 2015

“From precision cosmology to accurate cosmology”, Opening talk at “Accurate Astrophysics. Correct Cosmology.” Royal Astronomical Society London UK July 2015

“The evolved universe: from observations to fundamental Physics” Solvay Meeting, Brussels, July 2015.

“The CMB turns 50” Opening talk at EWASS (European Week of Astronomy and Space Science), La Laguna ES, June 2015

“Standard ruler and cosmic ladder”, DAMTP, Cambridge, UK, Apr 2015

“Precision Cosmology: Challenges and opportunities” Discovery Colloquium, NBI, Copenhagen, March 2015

“Precision Cosmology: why should you care?” NuTel (XVI International Workshop on Neutrino Telescopes) Venice, March 2015

“Precision Cosmology, Accurate cosmology, Statistical cosmology” Astrostats, London, Dec 2014.

“Cosmology and fundamental Physics some examples”, IFiC Days, Oct 24 2014, Valencia IFiC.

“Cosmology and fundamental Physics some examples ” Gran Sasso Science Institute, meeting on Multi-messengers astronomy, Oct 14 2014.

“*Beyond the power spectrum of the density field*” Spanish Astronomical Society Meeting, Teruel, Sept, 2014.

“*The bispectrum of BOSS galaxies*” Imperial College London, Aug 2014.

“*The next frontier in CMB science: Polarization*” National Dutch Astronomy meeting, Amsterdam NL, May 2014.

“*Precision cosmology, Accuracy cosmology and Statistical cosmology*” Keynote talk, Statistical Challenges in 21st Century Cosmology, first IAU Symposium devoted to Astrostatistics, Lisbon PT May 2014.

“*The importance of low z measurements from cosmology*”, Space Telescope Science Institute Colloquium, April 2, 2014.

“*The importance of local measurements for cosmology*” invited talk at “The cosmic distance scale” Hubble space telescope institute Baltimore, USA, 31 March –2 April 2014.

“*Bayesian approach to non-Gaussianity*”, Non-gaussianity mini-workshop, Princeton University, Jan 2014, USA

“*Planck and the local Universe*” Specialized talk, Cosmology on the Beach 2014 essential cosmology for the next generation, Los Cabos Mexico, January 2014.

Invited lectures

“*Cosmostatistics*” at First CosmoStatistics Mexican School, 8 lectures with hands-on exercises, Guanajuato MX, April 2016.

“*Statistics*” at School on cosmology tools, IFT, Madrid, Nov 2013

“*Neutrinos in Cosmology*” 3 lectures, ISAPP summer school July 2013.

“*Cosmology*” 6 lectures, ISAPP summer school July 2013.

“*Introduction to Cosmology*” 3 Lectures CERN Student Summer Program, CERN, Geneva (CH) August 2013

“*Neutrinos and non-gaussianity*”, Euclid school for Engineers, Sept 2012, IAP, Paris (FR).

4 invited lectures “*Introduction to Cosmology*” CERN Student Summer Program, CERN, Geneva (CH) August 2012

3 invited “*Statistical Tools for CMB*”, ISAPP graduate school “Cosmic Microwave Background and High Energy Physics”, July 2012.

5 invited lectures “*Introduction to Cosmology*” CERN Student Summer Program, CERN, Geneva (CH) August 2011

2 invited lectures: “*Introduction to cosmology*”, CERN Latin-American School of High-Energy Physics. March 2011.

3 invited lectures: “*Statistical and numerical tools in Cosmology*”, School Essential cosmology for the next generation, Jan 2011

3 lectures: “*Introduction to Cosmology*”, TAE Barcelona, September 2010.

5 invited lectures “*Introduction to Cosmology*” CERN Student Summer Program, CERN, Geneva (CH) July 2010

5 invited lectures “*Introduction to Cosmology*” CERN Student Summer Program, CERN, Geneva (CH) July 2009

5 Invited lectures on “*Statistical tools for Cosmology*”, 2nd TRR33 Winter School on Cosmology: Theory for Observers; Observations for Theorists, December 2008.

Two lectures on “*Tools to analyze large scale structure surveys*”, PAU academic Training, Madrid (December 2007)

4 invited lectures on “*Statistical methods for CMB analysis*”, ”XIX Canary island Winter School In Astrophysics: The Cosmic Microwave Background: from quantum fluctuations to the present Universe”, November 2007, IAC Canary Islands, Spain.

3 lectures on “*Large-Scale Structure*” for graduate students, at “*PIRE school in cosmology*” at Universidad Catolica de Chile (March 2007).

4 lectures “*Observing dark energy*”, at Advanced School “The Dark side of the Universe” Como, IT (May 2007)

Outreach presentations

“*observando la luz del Universo mas lejano*” Cosmocaixa, Barcelona, April, 2018.

“*Comprender el Universo*” “sopar amb Estrelles”, Semana de la ciencia, Gava, Nov 2017

“*Comprender el Universo*” series “Dia de la Ciència a les Escoles”, public: 16-17 years old, Nov 2016, Sant Vicenc dels Horts.

“*Cosmology and Science diplomacy*” in ERCEA (European Research Council Executive Agency) Conference “Frontier Research and Science Diplomacy”, public: politicians, policy makers, Oct 2016, Brussels.

“*Probing the large-scale Universe*” hour-long interview for public television WGBH Forum Network, Boston, Jan. 2016.

“*Where does the Sun go at night?* and “*The solar system*” 3-4 years old and 4-5 years old preschoolers, British School of Barcelona, June 2015

“*El lado oscuro del Universo*” Comision d’igualdad UB, UB, April 2015

“*Cosmologia: observando el invisible*”, Asociacion Astronomos Aficionados ASTER, Barcelona, April 2015

“*El lado oscuro de universo*”, series “La ciencia en primera persona”, en el “Dia de la Cincia a les Escoles”, public 4to de ESO 19 Nov 2014, Sant Boi de Llobregat.

“*Observando los temblores del big bang*” Planetario de Madrid, 13 Nov 2014 (<https://vimeo.com/112259646>).

“*Diez preguntas sobre el Universe, un concurso para todos los públicos*” Teruel, Sept 2014.

“*Que es y donde esta el 96% del Universo?*” Agrupació Astronòmica de Sabadell , March 2014

“*Que es y donde esta el 96% del Universo?*” Pessics de Ciencia, series, Ajuntament de L’Hospitalet, October 2013

“*Euclid and neutrinos*” Euclid Hangout, June 2013

Two lectures on *Cosmology* CERN open days, September 2013.

Origins 2013, September 2013, CERN

“*Black Holes*”, International English College, Malaga (ES), May 2010.

“*L’Universo*” , Scuola Elementare Italiana di Barcellona (8-9 years old), April 2010

“*Big Questions about the Universe*”, ICREA colloquium, Barcelona, Oct 2009

“*El lado oscuro del Universo*”, ciclo ”Humanidades, Ingeniera y Arquitectura”, UPM, Madrid (ES), May 20, 2009

“*The dark side of the universe*”, International English College, Malaga (ES) -High school level-, March 2009.

SETroutes Insight lecture (www.set-routes.org) Nov 2008, CERN, Geneva (CH)

“*A crisis in Cosmology?*”, EuroScience Open Forum - ESOF 2008 Barcelona (ES), July 2008

“*How can the CMB help constraining dark energy?*”, “A Decade of Dark Energy Science Writer’s Workshop” , May 2008, Space Telescope Science Institute, Baltimore, MD, USA

“*La energia Oscura*”, “XI ciclo de conferencias presente y futuro de la ciencia y la tecnología”, Malaga (ES), April 2008

“*Dark energy*”, March 2008, Oporto (PT).

“*Seeing dark energy with the cosmic microwave background and galaxy surveys*” Dark energy session at 2005 AAAS, Washington, DC, USA.

Two talks at Euroscience Open Forum, “*The cosmic connection*” and “*The top 10 mysteries of the Universe*”, Stockholm, August 2004

“*Combining Cosmic Microwave Background observations and Galaxy Surveys*”, Cool astronomy for everyone session at AAS, Nashville, May 2003

Inspirational talks

Zonta International, Alumnae Network meeting, Nice, FR, June 2016 on gender equality in STEM

English International College (Malaga, ES), June 2015, closing of the academic year 2015 and graduation

4. NAMED LECTURES

Rosenblum lecture, “*Connecting Cosmology to fundamental physics: examples*”, Hebrew University, May 2012

Svein Rosseland lecture, “*Big questions about the Universe*”, Oslo University, May 2010.

Niels Bohr lecture “*Cosmology from the Cosmic microwave background and galaxy surveys*”, Niels Bohr institute, Copenhagen, May 2004

5. TEACHING and TRAINING EXPERIENCE

Formal courses

My only formal teaching duty is co-teaching the Cosmology Course (advanced undergraduate) at the University of Oslo spring 2014, 2015, 2016.

I do give specialised lectures at summer or winter schools. You can find some examples of some of my lectures recorded on line:

http://videlectures.net/licia_verde/ (summer course introduction to cosmology final year undergraduate/first year graduate level)

<http://cds.cern.ch/record/1142569?ln=de> (Outreach/high school level)

<http://freevidelectures.com/Course/3224/Essential-Cosmology-for-the-Next-Generation/5> (statistics, graduate student -not in statistics- level)

Below is a list of courses taught at University of Pennsylvania (2004-2007).

“Introduction to Cosmology”, (course Astro012001), University of Pennsylvania (Spring 2007).

“Survey of the Universe”, (course Astro 001001) University of Pennsylvania (Fall 2006)

“Introduction to Cosmology”, (course Astro012001), University of Pennsylvania (Spring 2006).

“Survey of the Universe”, (course Astro 001001) University of Pennsylvania (Spring 2005)

“Survey of the Universe”, (course Astro 001001) University of Pennsylvania (Fall 2004)

“Galaxies and the Universe”, (course Astro 005001) University of Pennsylvania (Spring 2004)

Other

Organizer of ERC training <http://icc.ub.edu/~liciaverde/ERCtraining.html>

graduate visiting student supervisor D. Karagiannis (May—June 2015)

Undergraduate visiting student supervisor for senior thesis (Stefania Pandolfi) (Feb 2008–April 2008)

Visiting grad student supervisor (Maria Beltran) (Nov 2006)

Grad student supervisor (Chris D’Andrea) (May 2005–July 2007)

Advisor of a visiting graduate student (Ingunn Wheus) (September 2004–December 2004)

Informal advisor of undergraduate student (Yoon-Min Choi) (Sept. 2004–July 2007)

Supervisor of two graduate students summer projects (Chris D’Andrea, Jorge Moreno) (May–August 2004)

Supervising one undergraduate senior thesis (Erika Nelson) (Sept. 2003–June 2004).

Attendance to the course “Professor 101” organized by Princeton University (2002).

Students and Postdocs

Master students

Tutor of Master student Francesca Frangoude (Jan 2011–Sept 2011) → PhD student at Laboratoire d’Astrophysique de Marseille.

Supervisor of Master student Jose-Luis Bernal Mera (2014–2015) → FPU PhD student at UB

Co-Supervisor of master student Andrea Ravenni (2015) → PhD student at Padova University.

PhD students

PhD advisor of Kathleen Short, La caixa PhD fellowship, incoming in 2017

PhD advisor of David Valcin (May 2017–Present)

PhD advisor of Nicola Bellomo (Jan 2016–present)

PhD advisor of Jose-Luis Bernal Mera (Sep. 2015–present)

PhD advisor of Anna Mangilli (Nov 2007–Sept 2011) → Planck postdoc at IAP Paris.

PhD advisor of Hector Gil-Marin (Nov 2008–Sept. 2012) → postdoc at Institute of Cosmology and Gravitation Portsmouth (UK).

Advisor of graduate student Carolyn Sealfon (July 2003–June 2006) → lectureship at West Chester University (USA).

Postdocs

Co-Postdoctoral advisor of Ilia Musco, Ricardo Ferreira.

Postdoctoral advisor of Ben Kalus (Sep. 2017–Present)

Postdoctoral advisor of Alexander Mead (Sep. 2017–Present) Marie Curie Fellow.

Postdoctoral advisor of Alvise Raccanelli (Sept. 2016–Present) Marie Curie Fellow.

Postdoctoral advisor of Bin Hu (Dec 2015–Present) → Faculty Thousand talents program, CN

Postdoctoral advisor of Emilio Bellini (June 2014–Sept, 2016) → Beecroft Fellow, Oxford.

Postdoctoral advisor of Antonio Cuesta (Oct 2013–Jan 2017) → University of Granada

Postdoctoral advisor of Fergus Simpson (Jan 2014–March 2017) → Startup α -I

Postdoctoral advisor of Jorge Norena (Oct 2010–Oct 2013) → postdoc at University of Geneva, CH, now Faculty, Chile.

Postdoctoral advisor of Christian Wagner (Oct 2009–Sept. 2012) → postdoc at MPA, Munich

Postdoctoral advisor of Ben Hoyle (Nov 2009–Sept. 2012) → postdoc at Excellence Cluster, Munich.

Postdoctoral advisor of Aday Robaina (August 2010–July 2012) → postdoc at Univ. Michigan USA. Now analyst (Madrid).

Postdoctoral advisor of Roland de Putter (Oct 2010 – Sept. 2012) → Caltech Postdoctoral Scholar at Jet Propulsion Laboratory

Postdoctoral advisor of Beth Reid (Nov 2008–August 2010) → Hubble Fellow at Berkeley

Postdoctoral advisor of Anastasios Avgoustidis (Dec 2008–Oct.2009). Dr. Avgoustidis is now Research Fellow at Nottingham University (UK).

Postdoctoral advisor of Carmelita Carbone (May 2008–May 2009). Dr. Carbone is now postdoc (INAF Fellow) at Milan Observatory (IT).

Postdoctoral advisor of Carlos Hernandez-Monteagudo (Feb 2005 — September 2007). Dr. Hernandez-Monteagudo is now staff at Centro de Estudios de Física del Cosmos de Aragón (ES) and Ramon y Cajal researcher.

Postdoctoral advisor of Viviana Acquaviva (Nov 2006 — August 2007). Dr. Acquaviva is now a Faculty at CUNY New York (USA).

5. SERVICE and Conference organization

Committees (Advisory, Selection, Thesis)

Selection committee for faculty position, Ecole Normale Supérieure, Paris, 2017

International Astrostatistics association council member (2016–2017)

Selection committee for faculty position, Stockholm University, 2017

ArXiv science advisory board (Dec 2015– present)

DESI publication board (2015–Present)

Max Planck Institute for Astrophysics (Garching) Scientific International Advisory Committee (2015–present)

Panel for the evaluation of the International Max Planck Research Schools (IMPRS) Heidelberg DE (2015)

Steering committee of CORe/PRISM-ESA next generation CMB polarization mission (2014–present)

Visiting committee Institut d’Astrophysique de Paris (IAP), Paris, AERES expert (2013)

Institute Lagrange Paris, Scientific committee (2011–Present)

Search committee for faculty position, Oslo University (2008)

PhD thesis committees:

M. Francis (Rutgers University); R. Kristiansen (Oslo University); G. Dobler (UPenn); F. Stabenau (UPenn); Z. Wahhaj (UPenn); D. Dolney (UPenn), J. Grande (UB), Johan Samsings (Dark, Copenhagen), Zachary Sleepian (Harvard University)

Editorial board

Editor for “Physics of the dark universe” journal, Elsevier, since 2013.

Editor for “Journal of Cosmology and Astroparticle Physics” (JCAP), since 2017

Editorial Advisory Panel for “Classic and Quantum Gravity” (CQG), since 2016

Astronomical service

Referee

Referee for ApJ, MNRAS, PRD, PRL, PRD, Nature, A&A, CQG, JCAP

Referee for Italian Evaluation of Research Quality (2012, 2013)

Reviewer

Chair of the NASA Hubble Fellowship Physics & Cosmology selection panel, NASA, Jan 2018

NSERC (Natural Sciences and Engineering Research Council of Canada) grant reviewer

Barcelona Institute for Science and Technology grants reviewer (2017, 2018)

Radcliffe Fellowship selection committee (2016, 2017) –Harvard University–

Grant reviewer for ANPCYT (Argentina National research council)

Einstein Fellowships Allocation committee (2015) –NASA–

Grant reviewer (Physics section) for Ministerio de Economia y Competitividad (ES) Plan Nacional grants – akin to UK rolling grants– (2015)

Grant allocation committee (Astro section), for Ministerio de Economia y Competitividad (ES) Plan Nacional grants – akin to UK rolling grants– (2015)

Grant reviewer for Swiss National Science foundation (2015, 2017, 2018)

Grant reviewer for BIST ignite calls (Barcelona 2016, 2017)

Grant reviewer for CONICYT (Chilean national research council) (2015, 2016)

Grant reviewer for NWO (Dutch national research funding) (2014).

Grant reviewer for SRNSF (Georgia National Research funding) (2013)

Grant reviewer for French Agencie Nationale de Recherche (2013, 2016).

ERC (European Research Council) referee and “expert” (2012–Present)

Grant Reviewer for German Research Foundation DFG (2011, 2012, 2013)

Reviewer for STFC- Science and Technology Funding Council- (UK, 2010, 2011)

Grant reviewer for Ministerio de ciencia y Innovacion Plan Nacional grants – akin to UK rolling grants– (2012, 2015, 2017)

Grant reviewer for Ministerio de ciencia y Innovacion (ES) Ramon Y Cajal positions (2011)

Reviewer for Los Alamos National Lab collaborative research grants (2008)

Fellowships allocation committee: Chandra (2008) and Einstein (2009) fellowships, NASA

Grant allocation committee: NASA Astrophysics Theory program (2003, 2006)

Review committee: NASA postdoctoral applications (2004, 2006).

Reviewer for Research Corporation Awards–USA (2003)

Prize committees

Allocation committee for John Bahcall Physics Award 2016

Conference organisation

Scientific Organizing Committee for Neutrino 2018, Heidelberg 2018

Scientific Organizing Committee for Spanish-Portuguese Relativity Meeteing 2018

Scientific Organizing Committee for Cosmo21 2018

Scientific Organizing Committee for Spanish Astronomical society biannual meeting (2017-2018)

Scientific Organizing Committee for Neutrino 2016, London July 2016

Scientific Organizing Committee for “fundamental Cosmology” 2013, 2014, 2015 ,2016, 2017.

Organising committee (SOC and LOC) “From Inflation to Galaxies” a workshop in honour of Sabino Matarrese, Sept 2015, Castiglioncello LI, IT.

Scientific Organizing Committee for MPA/ESO/MPE/EXC Joint Conference on the large-scale structure, Munich, July 20-24, 2015

Scientific Organizing Committee for the Aspen Winter Conference, Closing in on the cosmological model, March 2015

Chair of the Scientific Organizing Committee for “Beyond LCDM” conference Oslo Jan. 2015.

Scientific Organizing Committee for “New Challenges for Early Universe Cosmology” Amsterdam (August 2013)

Scientific Organizing Committee for “Statistical challenges of Modern Astronomy” Penn State University, (July 2011)

Convener of session “CMB, Large scale structure and cosmological parameters” at Cosmo09.

Scientific Organizing Committee for “COSMOSTAT: Statistical challenges in cosmology” Ascona Conference (July 2009)

Convener, “New horizons in cosmology” Workshop at the Galileo Galilei institute for Theoretical Physics, Florence, Jan-March 2009; Including two conferences: “Dark matter” (Feb 2009) and “Dark energy” (March 2009)

Scientific Organizing Committee for 2007 “Data Analysis in Cosmology”, Santander.

Organizing Committee: National Academy of Sciences Frontiers of Science 2004 .

Co-organizer of Aspen winter conference “The large scale distribution of mass and light in the Universe” (2002)

Others

Coordinating pilot program in ICCUB to improve institution success with ERC starting grants (2017).

Working group: CMBPol Mission Concept Study, Inflation working group and Fisher working group (preparation for the US National Academies Decadal Survey)

Writer: LSST Science Book (writer in BAO, Large-scale structure and bispectrum chapters, in preparation for the US National Academies Decadal Survey)

Reviewer for the astronomy textbook “The Cosmic Perspective” Bennett et al. 4th ed. (2005)

Public understanding of science

-Appearance in “Las leyes de la termodinamica” a film by Mateo Gil, on cinemas April 2018 (In English/Spanish Subtitles)

- La Vanguardia Sec. Big Vang, “Cul es la teora ms vlida sobre el final del Universo?”, April 2018 (in Spanish)

-National Geographic Espana, ”Carta estrella”, ”La conquista de Martes”, Dec 2016. (In Spanish)

-Fabrica de ciencia Radio Gava, March 2016 (http://us.ivoox.com/es/cosmologia-fondo-microondas-galaxias-otros-aspectos-audios-mp3_rf_10710722.1.html) (In Spanish)

-WHBG Public broadcasting, Jan 2016 (<http://www.forum-network.org/lectures/probing-large-scale-universe/>) (In English)

-Mentor in 1000Girls1000Talents program of the New York Academy of Science to increase worldwide the participation of women in STEM-careers. (2015–present)

-Advisor for other Mentors of the 1000Girls1000Talents program of the New York Academy of Science to increase worldwide the participation of women in STEM-careers (2016–present)

My research has been featured in several newspapers/books, among them:

for the large scale structure research:

Investigacion y Ciencia (April 2015, Jan 2018)

El Pais (8 January 2014)

La Stampa (6 June 2012)

El Pais (19 Sept 2009, 11 June 2008)

The New York Times Science section (8 January 2002)

The International Herald Tribune (11 Jan. 2002)

The Guardian (11 Dec. 2001)

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for the CMB research:

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I have been invited to lecture at Amateur Astronomers associations and for college science instructors.

I have been invited to lecture at the Euroscience open forum 2004, at the Feb. 2005 AAAS “Understanding Dark Energy” session and at the Euroscience open forum 2008.

6. PUBLICATIONS

Total citation count (from ADS): 45,144; h index (from Astrophysics Data System): 66.

Google scholar: citation count: 54,688, h index: 69.

* indicates alphabetic authorship, # indicates papers with group’s students/postdocs, ** indicates alphabetic authorship after lead author(s)

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7. GROUP

Information about the ICC physical cosmology group can be found at:
<http://icc.ub.edu/~liciaverde/ICC-Phys.Cosm.html>.

The group is composed by:

Raul Jimenez, Faculty (Cosmology, theory, galaxy formation, stellar evolution)

Alexander Mead, Marie Curie PostDoc.

Ben Kalus, Postdoc

Alvise Raccanelli Marie Curie PostDoc (Theory, large-scale structure, radio surveys, gravity waves)

Jose Luis Bernal, PhD Student (Large scale structure, galaxy surveys)

Nicola Bellomo, PhD Student (Neutrinos, Dark matter, Large scale structure)

David Valcin, PhD student (Neutrinos, Redshift Space distortions)

Specialized training courses are being organized periodically on topics of interest of the group with the support of the ERC grant (<http://icc.ub.edu/~liciaverde/ERCtraining.html>). We invite an expert in the selected field, obtain a list of preliminary readings and devote three full days (in full immersion) to the issue. The courses are tuned to be accessible to graduate students but to cover issues at the forefront of research. In each course, half of the time is dedicated to standard lectures and half to hands-on activities in the style of tutorials, like practical exercises, coding or reproducing key results from the literature.