

Curriculum Vitae

— Thomas Buchert

Personal Information

Birth : August 18th, 1959

Nationality : German

Other Languages : Fluent in English and French (spoken and written) ; Basics in Italian, Spanish and Japanese

Profession : Professor PR1 at Université Claude Bernard, Lyon, France

Responsibilities

and Memberships : Staff member at the Observatory of Lyon, C.R.A.L., Lyon, France

Head of GALPAC Team (Galaxy Physics, Instrumentation and Theory)

Head of Theoretical Cosmology Group

Coordinator of CRAL/IPNL–Collaboration on Dark Energy and Dark Matter

Elected or Appointed Member of the Councils “C.R.A.L.”, “Recruitment and Promotion”

(Univ. Lyon 1), “Higher Education” (LIO, Excellence Cluster)

Master Programme : École Normale Supérieure, Lyon, France

External Collaborator : S.D.S.S. Collaboration

Member of two Euclid groups ‘Theory’ and ‘Clustering’

Member of 4MOST

Adjunct Professor of the Faculty ‘ICRA–NET’

Appointed Member of “Foundational Questions in Physics & Cosmology, F.Q.X.i.”

Coordinates : www.cosmunix.de

Emails : buchert@obs.univ-lyon1.fr / buchert@ens-lyon.fr / buchert@cosmunix.de

Education/Career

1966–1978 : Primary and High–School in Villingen–Schwenningen

1978–1984 : Studies of Theoretical Physics at Ludwig–Maximilians–Universität (L.M.U.), Munich

1983–1984 : Diploma thesis at Max–Planck–Institut für Astrophysik (M.P.A.) in Garching

Oct. 26th, 1984 : Diploma in Theoretical Physics (Dipl.–Phys.)

1984–1988 : Ph.D. thesis at M.P.A. in Garching

July 14th, 1988 : Ph.D. in Theoretical Physics (Dr.rer.nat.)

Thesis topic : ‘*The Pancake Theory of Formation of Supergalactic Structures – Analytical Foundations*’ ; Thesis advisors : Prof. G. Börner and Prof. J. Ehlers

1989–1993 : Habilitation thesis at M.P.A. in Garching

July 13th, 1994 : Ph.D. in Astronomy – Habilitation – (Dr.rer.nat.habil.)

July 18th, 1995 : Lecturer Degree (Priv.–Doz.) at L.M.U. in Munich

Thesis topic : ‘*Inhomogeneous Newtonian Cosmogony*’

2005 : Qualification as University–Professor in France

Sept. 1st, 2007 : Titularisation as University–Professor in France

Sept. 1st, 2012 : Promotion to Professor 1st Class

Positions

- 1984–1995 : Research Associate at M.P.A. Garching, Germany
- 1995–1997 : Research Associate at L.M.U. Munich, Germany
- 1997–1998 : Research Associate at T.U.M. Garching, Germany
- 1998–1999 : Associated Member of Personnel at C.E.R.N. Geneva, Switzerland
- 1999–2000 : C.O.E. Researcher at National Astronomical Observatory, Tokyo, Japan
- 2001–2006 : Research Associate at T.U.M. Garching, Germany
- SSem 2006 : Chair of Theoretical Physics, University of Bielefeld, Germany
- 1995–2007 : Privat-Dozent at L.M.U. Munich, Germany
- Since 2007 : Professor at Université Lyon 1 ‘Claude Bernard’, Lyon, France

Visiting Positions

- 1988 : Visiting Researcher at N.O.R.D.I.T.A., Copenhagen, Denmark
- 1989–1994 : Visiting Researcher at Observatory of Paris, D.A.E.C., and I.A.P., Paris, France
- 1994 : Guest Scientist at the Aspen Center for Physics, U.S.A.
- 1997 : Visiting Professor at University of Osaka, and Tohoku University Sendai, Japan
- 1997 : Visiting Professor at Kansas University, Lawrence, U.S.A.
- 1999/2000 : Tomalla Visiting Professor at University of Geneva, Switzerland
- 1999–2000 : Visiting Professor at Tohoku University Sendai, Japan
- 2000 : Visiting Professor at Tokyo Institute of Technology, Japan
- 2000–2012 : Visiting Professor at University of Pavia, Italy
- 2001 : J.S.P.S. Invited Fellow at Tokyo Institute of Technology, Japan
- 2002–2003 : Monkasho Invited Professor at The University of Tokyo, R.E.S.C.E.U., Tokyo, Japan
- 2003 : Visiting Professor at Observatory of Nice, France
- 2004 : Visiting Professor at Tohoku University Sendai, Japan
- 2004/2005 : Visiting Professor at C.P.T. Marseille, France
- 2005 : Visiting Professor at Observatory of Paris, L.U.T.H., France
- 2006 : Visiting Professor at Dept. of Appl. Math., Cape Town, South Africa
- 2007 : Visiting Professor at Observatory of Paris, L.U.T.H., France
- 2007 : Visiting Professor at Paris University 7, France
- 2015 : Visiting Professor at University of Santiago, Chile

Shortlisted/Interview for the following Positions :

- 1995 : Associate Professor at L.M.U. Munich, Germany
- 1995 : Permanent Research Position at M.P.A. Garching, Germany
- 2000 : Associate Professor at L.M.U. Munich, Germany
- 2001 : Associate Professor at Würzburg University, Germany
- 2002 : Reader at Portsmouth University, U.K.
- 2003 : Full Professor at Lancaster University, U.K.
- 2005 : Associate Professor at T.U.M. Garching, Germany
- 2006 : Scientific Coordinator, I.M.P.R.S. School, Max-Planck-Institut für Physik, Germany
- 2007 : Full Professor at Université Claude Bernard, Lyon, France (accepted)
- 2007 : Full Professor at École Normale Supérieure, Lyon, France

Awards and Grants

- 1978 : Scheffel Award by German Literature Society
- 1988–1994 : ‘Schwerpunkt’–Grant by Deutsche Forschungsgemeinschaft (D.F.G.)
- 1995–2006 : Project Representative ‘Sonderforschungsbereich S.F.B. 375’ :
(Research grants in Astro–Particle physics)
- 1998 : Associate Membership at C.E.R.N. Geneva, Switzerland
- 1999 : Tomalla Foundation, Switzerland
- 1999–2000 : Center of Excellence Grant, National Astronomical Observatory Tokyo, Japan
- 2000 : Tomalla Foundation, Switzerland
- 2001 : J.S.P.S. Invitation Fellowship, Japan
- 2002–2003 : Monkasho Award, The University of Tokyo, Japan
- 2007–2013 : Prime d’Enseignement Supérieure, France
- 2008–2009 : Délégation C.N.R.S. (6 months), France
- 2011–2016 : Prime d’Excellence Scientifique, France
- 2012–2013 : Délégation C.N.R.S. (6 months), France
- 2014–2015 : C.R.C.T. (6 months), OSU, France

Teaching

- 1990 : Seminar (Large–scale Structure and Galaxy Formation), L.M.U. (in German)
- 1993 : Experimental Physics Tutorial (Advanced Lab. Course), L.M.U. (in German)
- 1993 : Lector : Physics School (The Evolution of Galaxies), Bad Honnef (in English)
- 1994 : Seminar (Newtonian Cosmology and Statistics), L.M.U. (in German)
- 1995 : Lector : School for Teachers (Cosmology), Bad Honnef (in English)
- 1995 : Lector : Enrico Fermi School (Dark Matter), Varenna, Italy (in English)
- 1996–1997 : Lecture Courses (Cosmology I and II), L.M.U. (in German)
- 1997–1998 : Lecture Course (Kinetic Theory), L.M.U. (in German)
- 1998 : Lecture Course (Theoretical Mechanics TLI), L.M.U. (in German)
- 2001–2002 : Lecture Course (Kinetic Theory), L.M.U. (in German)
- 2003 : Lecture Course (Newtonian Gravity), L.M.U. (in German)
- 2003–2004 : Lecture Course (Structure Formation), L.M.U. (in German)
- 2004 : Lector : VII. École de Cosmologie, Marseille, France (in French)
- 2004–2005 : Lecture Course (Newtonian & Relativistic Cosmology), L.M.U. (in German)
- 2005–2006 : Lecture Course (General–relativistic Cosmology), L.M.U. (in German)
- 2006 : Lecture Course, International Graduate School (Newton’s & Einstein’s gravitation theories of continuous media), University of Bielefeld , Germany (in German) in association with Univ. of Paris 6, Paris 7, Paris–Sud 11, Saclay, France
- 2006 : Lector : XIIth. Brazilian School of Cosmology & Gravitation, Rio de Janeiro, Brazil (in English)
- 2006 : Lecture Series (Backreaction Issues in Relativistic Cosmology), University of Cape Town, South Africa (in English)
- 2008 : Lecture Course (Introduction to Theories of Gravitation), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2008 : Tutorial (Introduction to Theories of Gravitation), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2008 : Experimental Physics Tutorial (Basic Lab. Course), Université Lyon 1, France (in French)

- 2008 : Agrégation Physique (Teacher Formation), École Normale Supérieure, Lyon, France (in French)
- 2008 : Doctoral Course (Spatial Average of Einstein's Equations and the Dark Energy Problem in Cosmology), École Normale Supérieure, Lyon, France (in French)
- 2008 : Lecture Course (Mathematical Methods in Physics), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2008 : Tutorial (Mathematical Methods in Physics), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2008 : Informatics Tutorial (Basic Lab. Course), Université Lyon 1, France (in French)
- 2009 : Agrégation Physique (Teacher Formation), École Normale Supérieure, Lyon, France (in French)
- 2009 : Lecture Course (Gravitational Systems), Master 2, École Normale Supérieure, Lyon, France (in French) – canceled due to accident
- 2009 : Lecture Course (Introduction to Theories of Gravitation), Master 1, École Normale Supérieure, Lyon, France (in French) – canceled due to accident
- 2009 : Tutorial (Introduction to Theories of Gravitation), Master 1, École Normale Supérieure, Lyon, France (in French) – canceled due to accident
- 2009 : Lecture Course (Mathematical Methods in Physics), Master 1, École Normale Supérieure, Lyon, France (in French) – replaced due to accident
- 2009 : Tutorial (Mathematical Methods in Physics), Master 1, École Normale Supérieure, Lyon, France (in French) – replaced due to accident
- 2010 : Lecture Course (Gravitational Systems), Master 2, École Normale Supérieure, Lyon, France (in French)
- 2010 : Lecture Course (Introduction to Theories of Gravitation), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2010 : Tutorial (Introduction to Theories of Gravitation), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2010 : Tutorial (Electrodynamics), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2010 : Lecture Course (Mathematical Methods in Physics), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2010 : Tutorial (Mathematical Methods in Physics), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2011 : Lecture Course (Gravitational Systems), Master 2, École Normale Supérieure, Lyon, France (in French)
- 2011 : Lecture Course (Introduction to Theories of Gravitation), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2011 : Tutorial (Introduction to Theories of Gravitation), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2011 : Tutorial (Electrodynamics), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2011 : Lecture Course (Mathematical Methods in Physics), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2011 : Tutorial (Mathematical Methods in Physics), Master 1, École Normale Supérieure, Lyon, France (in French)
- 2011 : Lecture Course (Cosmology and Gravitational Systems), Master 2,

- École Normale Supérieure, Lyon, France (in French)
- 2012 : Lecture Course (Introduction to Theories of Gravitation), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2012 : Tutorial (Introduction to Theories of Gravitation), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2012 : Tutorial (Electrodynamics), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2012 : Doctoral Course (The Averaging Problem in Cosmology), Graduate School,
University of Pavia, Italy (in English)
- 2012 : Tutorial (Electrodynamics), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2012 : Tutorial (Continuum Mechanics), Master 1,
Université Lyon 1, France (in English)
- 2012 : Lecture Course (Mathematical Methods in Physics), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2012 : Tutorial (Mathematical Methods in Physics), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2012 : Lecture Course (Cosmology and Gravitational Systems), Master 2,
École Normale Supérieure, Lyon, France (in English)
- 2013 : Lecture Course (Introduction to Theories of Gravitation), Master 1,
École Normale Supérieure, Lyon, France (in English)
- 2013 : Tutorial (Introduction to Theories of Gravitation), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2013 : Tutorial (Electrodynamics), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2013 : Tutorial (Electrodynamics), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2013 : Tutorial (Continuum Mechanics), Master 1,
Université Lyon 1, France (in English)
- 2013 : Lecture Course (Mathematical Methods in Physics), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2013 : Tutorial (Mathematical Methods in Physics), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2013 : Lecture Course (Cosmology and Gravitational Systems), Master 2,
École Normale Supérieure, Lyon, France (in French)
- 2014 : Lecture Course (Introduction to Theories of Gravitation), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2014 : Tutorial (Introduction to Theories of Gravitation), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2014 : Doctoral Course (Averaging Inhomogeneous Cosmologies),
XII. Cosmology School Cargèse, France (in English)
- 2014 : Tutorial (Continuum Mechanics), Master 1,
Université Lyon 1, France (in English)
- 2014 : Tutorial (Mathematical Methods in Physics), Master 1,

- École Normale Supérieure, Lyon, France (in French)
- 2014 : Lecture Course (Cosmology and Gravitational Systems), Master 2,
École Normale Supérieure, Lyon, France (in English)
- 2015 : Lecture Course (Introduction to Theories of Gravitation), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2015 : Tutorial (Introduction to Theories of Gravitation), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2015 : Tutorial (Continuum Mechanics), Master 1,
Université Lyon 1, France (in English)
- 2015 : Tutorial (Mathematical Methods in Physics), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2015 : Lecture Course (Cosmology and Gravitational Systems), Master 2,
École Normale Supérieure, Lyon, France (in English)
- 2016 : Lecture Course (Introduction to Theories of Gravitation), Master 1,
École Normale Supérieure, Lyon, France (in French)
- 2016 : Tutorial (Introduction to Theories of Gravitation), Master 1,
École Normale Supérieure, Lyon, France (in French)

Supervising

in Germany :

14 Diploma students, 1 Teacher Exam student,
11 Ph.D. students.

in France :

4 Master Students M1, 10 Master Students M2,
6 Ph.D. students (two ongoing).

Fund Raising and Exchange Programs

- 1991–1993 : Exchange Program of Max–Planck–Society and Chinese Academy of Sciences, M.P.G.–C.A.S.
- 1995–1997 : Student exchange grants for France (D.A.A.D.)
- 1996 : Student exchange grant for Spain (Acciones Integradas)
- 1995–1998 : Coordinator for Munich : E.C.N. Cosmology (planning phase)
- 1995–1997 : S.F.B. 375 (Research in Astro–Particle physics) : Grants for 1 Ph.D. student and 1 postdoc
- 1998–2000 : S.F.B. 375 (Research in Astro–Particle physics) : Grants for 1 Ph.D. student and 2 postdocs
- 1999–2002 : D.F.G. grant for Ph.D. student
- 2001–2003 : S.F.B. 375 (Research in Astro–Particle physics) : Grants for 2 postdocs
- 2004–2006 : S.F.B. 375 (Research in Astro–Particle physics) : Grants for 1 Ph.D. student and 1 postdoc
- 2008–2011 : Grants for two Ph.D. students (École Doctorale Lyon)
- 2010–2011 : Fédération de Physique André Marie Ampère (Dark Energy and Dark Matter, 18 k€)
- 2011–2012 : Fédération de Physique André Marie Ampère (Structure Formation, 30 k€)
- 2011–2014 : Grant for Ph.D. student (École Doctorale Lyon)
- 2012–2015 : Grant for Ph.D. student (Bourse École Normale Supérieure)

- 2013–2015 : Student exchange grant (Center of French–Bavarian University Cooperation)
 2013–2016 : Exchange Funds for students : Poland (HELCOLS)
 2015–2018 : OPUS 7 Poland ; financial support for Polish project (role : key-I) (155 k€)

Workshop Organization

- 1989 : M.P.A. Progress Report on Cosmology and Gravitational Lensing (LOC)
 1993 : 4th M.P.G.–C.A.S. Workshop on High–energy Astrophysics (LOC)
 1996 : 2nd S.F.B. Workshop on Astro–particle Physics (LOC)
 2005 : Spacetime in Action : One hundred years of Relativity, University of Pavia, Italy (LOC)
 2007 : Cosmology School and Workshop, Cargèse, France (SOC)
 2008 : 2nd C.R.A.L./I.P.N.L. Conference on Dark Energy and Dark Matter, Lyon, France (LOC)
 2009 : U.N.E.S.C.O. Conference on The Dark Universe, Paris, France (LOC)
 2011 : Conference XXXV Matter to the Deepest, Ustron, Poland (SOC)
 2012 : 1st LIO conference on Neutrinos at the forefront of elementary particle physics and astrophysics, Lyon, France (LOC)
 2013 : Conference on Hot Topics in General Relativity, Quy–Nhon, Vietnam (SOC)
 2013 : Conference XXXVI Matter to the Deepest, Ustron, Poland (SOC)
 2014 : Workshop on Fundamental Issues of the Standard Cosmological Model, Cargèse, France (SOC)
 2015 : Conference XIV. Marcel Grossmann Meeting, Rome, Italy (LOC, ICC)
 2015 : Conference 1st Roman Juszkiewicz Symposium, Warsaw, Poland (SOC)

Refereeing

Referee for National Fund Organizations (*A.N.R. Grants, France ; N.S.F. Grants, U.S.A. ; The Netherlands ; Greece ; South Africa ; Estonia*) ; Referee for Books (*Cambridge Univ. Press ; John Wiley & Sons, Grenoble Sciences*) ; Referee for international journals (about 30 per year) : *Nature, Astron. and Astrophys., New Astronomy, M.N.R.A.S., The Astrophys. J., The Astrophys. J. Lett., Phys. Rev. D, Rev. Mod. Phys., Phys. Lett. A,B, Gen. Rel. Grav., Class. Quant. Grav., J.C.A.P., Annalen der Physik, Physica Scripta A, P.N.A.S., J. of Mod. Phys. D, Foundations of Physics, E.P.J.C., M.D.P.I. Galaxies* ; Referee of other organisations for stipendia : *D.F.G., Studienstiftung, D.A.A.D.*

Selected Invited Talks and Colloquia

Not included in this list : Talks at ‘local’ institutes (Max–Planck–Institut f. Astrophysik, Max–Planck–Institute f. Extraterrestrische Physik, Max–Planck–Institut f. Physik, European Southern Observatory, Ringberg Castle and Bad Honnef) and local universities (Ludwig–Maximilians–U., Technical U. and Astronomical Institute) in Munich/Garching and, from 2007, in Lyon (UCBL, ENS, IPNL).

1984 : Z.I.F., Bielefeld, Germany
 1988 : N.O.R.D.I.T.A., Copenhagen, Denmark
 1989 : Perugia, Italy
 1989 : Amsterdam and Leiden, The Netherlands
 1989 : Highlight-Lecture of the Astronomical Society, Graz, Austria
 1990 : Max-Planck-Institute for Astronomy, Heidelberg, Germany
 1990 : Huangshan, PR China
 1990 : University of Valencia, Spain
 1990 : Observatoire de Paris, D.A.E.C., France
 1991 : University of Valencia, Spain
 1991 : Observatoire de Meudon, D.A.E.C., France
 1993 : Niels-Bohr-Institute, Copenhagen, Denmark
 1994 : Aspen, Colorado, U.S.A.
 1994 : Observatoire de Paris, D.A.E.C., France
 1994 : Nandaihe, PR China
 1994 : Geltow, Potsdam, Germany
 1995 : Int. School Enrico Fermi, Varenna, Italy
 1995 : Observatoire de Paris, D.A.E.C., France
 1995 : University of Valencia, Spain
 1995 : Berlin Dahlem, Germany
 1996 : E.T.H., Zürich, Switzerland
 1996 : Ringberg, Tegernsee, Germany
 1996 : L.A.E.F.F., Madrid, Spain
 1997 : Lawrence, Kansas, U.S.A.
 1997 : Osaka University, Japan
 1997 : Tohoku University Sendai, Japan
 1998 : University of Essen, Germany
 1998 : Shanghai Observatory, PR China
 1999 : C.E.R.N., Geneva, Switzerland
 1999 : University of Geneva, Switzerland
 1999 : National Astronomical Observatory, Tokyo, Japan
 1999 : Tohoku University Sendai, Japan
 1999 : Hiroshima, Japan
 2000 : University of Geneva, Switzerland
 2000 : Tohoku University Sendai, Japan
 2000 : Tokyo Institute of Technology, Japan
 2000 : R.E.S.C.E.U., The University of Tokyo, Japan
 2001 : University of Pavia, Italy
 2001 : C.N.R.S., Institut Henri Poincaré, Paris, France
 2001 : University of Würzburg, Germany
 2001 : Tokyo Institute of Technology, Japan
 2001 : R.E.S.C.E.U., The University of Tokyo, Japan
 2002 : Waseda University, Tokyo, Japan
 2002 : University of Portsmouth, U.K.
 2002 : Tokyo Institute of Technology, Japan
 2002 : R.E.S.C.E.U., The University of Tokyo, Japan

2002 : University of Pavia, Italy
2003 : Observatoire de la Côte d'Azur, Nice, France
2003 : University of Lancaster, U.K.
2003 : Tokyo Institute of Technology, Japan
2004 : 21st C.O.E. Symposium, Tohoku University Sendai, Japan
2004 : Tohoku University Sendai, Japan
2004 : C.I.R.M. and C.P.T., Marseille, France
2004 : University of Pavia, Italy
2005 : C.N.R.S., Observatoire de Paris, France
2005 : Observatoire de Paris, L.U.T.H., France
2005 : C.I.R.M., Marseille, France
2005 : University of Geneva, Switzerland
2005 : Observatoire de Paris, L.U.T.H., France
2006 : R.W.T.H., University of Aachen, Germany
2006 : C.N.R.S., I.A.P. Paris, France
2006 : University of Bielefeld, Germany
2006 : XII. B.S.C.G., Rio de Janeiro, Brazil
2006 : Dept. of Appl. Math., Cape Town, South Africa
2007 : Spinoza Institute, University of Utrecht, The Netherlands
2007 : Observatoire de Paris, L.U.T.H., France
2007 : Observatoire de Lyon, C.R.A.L., France
2007 : C.N.R.S., Observatoire de Paris, France
2007 : Université Claude Bernard, Lyon, France
2007 : Albert Einstein Institute, Golm, Germany
2007 : University of Pavia, Italy
2007 : G.R.A.A.L., Montpellier, France
2007 : University of Ulm, Germany
2008 : L.P.N.H.E., Paris, France
2008 : E.P.F.L., Lausanne, Switzerland
2008 : F.Z. Karlsruhe, Germany
2008 : University of Ulm, Germany
2010 : L.A.M., Marseille, France
2010 : University of Konstanz, Germany
2010 : U.N.A.M. Mexico City (remote part.), Mexico
2011 : D.E.N.E.T., I.A.P., Paris, France
2012 : L.U.P.M., Montpellier, France
2012 : University of Pavia, Graduate School, Italy
2012 : Observatory of Brera, Merate, Italy
2013 : École des Mines, Saint-Étienne, France
2013 : Université Paris Diderot, Paris, France
2014 : Max-Planck-Institute for Nuclear Physics, Heidelberg, Germany
2014 : XII. Cosmology School, Cargèse, France
2015 : Observatory of Santiago, Chile
2015 : University of Santiago, Doctoral School, Chile