Curriculum Vitae – Edoardo Carlesi

Personal Information

Birth 23rd September 1983, Pisa, Italy.

Citizenship Italian

Permanent address Via Archelao di Mileto 30 00124, Roma, Italy Current address Rechov Yehuda 5, 93547, Jerusalem, Israel

Contact data carlesi@phys.huji.ac.il

Work Experience

October 2014 \rightarrow Today Postdoctoral fellow at the Racah Institute Of Physics, Hebrew University, Jerusalem, Israel

March 2012 – June 2012 Visiting scholar at the Institute of Astronomy, School of Physics, University of Sydney, Sydney, Australia

November 2010 – September 2014 Profesor Ayudante (Assistant Professor/PhD Student) at the Universidad Autonoma de Madrid

May 2008 – November 2008 Visting student at the Heidelberg Institut für Theoretische Physik, Ruprecht Karls Universität Heidelberg, Heidelberg, Germany

EDUCATION

January 2010 - May 2014 PhD student at the Universidad Autonoma de Madrid. Thesis subject: Simulating Cosmologies beyond the Standard Model.
Supervisor: Prof. Alexander Knebe. Final Grade: Sobresaliente Cum Laude

September 2005 – March 2009 Laurea Specialistica (Master Degree), Theoretical Physics and Cosmology, Universitá degli Studi Roma 3. Thesis subject: Study of a Model of Neutrinos Coupled to Quintessence Supervisor: Prof. Luca Amendola. Final Grade: 110/110 Cum Laude

September 2002 – July 2005 Laurea Breve (Bachelor Degree), Physics, Universitá degli Studi Roma 3. Thesis subject: Exactly Solvable N-Body Models in Quantum Mechanics. Supervisor: Prof. Orlando Ragnisco. Final Grade: 110/110 Cum Laude

September 1997 – June 2002 Liceo Scientifico Democrito di Roma (High School)

Publications

- 5. On the observability of coupled dark energy with cosmic voids. P. Sutter, E. Carlesi, A. Knebe, B. Wandelt. MNRAS 446, 1, 2015
- 4. Hydrodynamical simulations of coupled and uncoupled Quintessence models II. Galaxy clusters. **E. Carlesi**, A. Knebe, G.F. Lewis, G. Yepes. MNRAS 439, 2958, 2014
- 3. Hydrodynamical simulations of coupled and uncoupled Quintessence models I. Halo properties and the cosmic web. **E. Carlesi**, A. Knebe, G.F. Lewis, S. Wales, G. Yepes. MNRAS 439, 2943, 2014
- N-body simulations of a Vector Dark Energy model. E. Carlesi, A. Knebe, G. Yepes, S. Gottlöber, A. Maroto, J. Beltran. MNRAS 425, 669, 2012
- 1. High-z massive clusters and Vector Dark Energy. **E. Carlesi**, A. Knebe, G. Yepes, S. Gottlöber, A. Maroto, J. Beltran. MNRAS 418, 2715, 2011

Talks and Seminars **December 2014** Invited talk at the *The Quest for Dark Energy II - Workshop*, Ringberg Castle, Munich, Germany

October 2014 Invited seminar at the Racah Institute of Physics, Hebrew University, Jerusalem, Israel

September 2014 Invited seminar at the $\mathit{IPNL},$ Université de Lyon 1, Lyon, France

 ${\bf August~2014~Invited~talk~at~the~\it CLUES~\it Project~annual~meeting,~AIP~Potsdam,} \\ {\bf Germany}$

May 13th 2014 PhD thesis defence, Departamento de Física Teórica, Madrid

April 2014 Contributed talk at the *CosKASI 2014* conference, Daejeon, Republic of Korea

April 2014 Invited seminar at the AIP, Potsdam, Germany

September 2013 Contributed talk at the $PACIFIC\ 2013$ symposium, Moorea, French Polynesia

May 2013 Invited talk at the Workshop on Cosmological Simulations: From galaxies to clusters to the large scale structures, Miraflores de la Sierra (Madrid), Spain

June 2012 Invited talk at the CLUES Project annual meeting, Lyon, France

September 2011 Contributed talk at the *Observational Cosmology* summer school, University Of Azores, Portugal

June 2011 Invited talk at the *CLUES Project* annual meeting, Sussex University, Brighton, UK

May 2011 Invited talk at the Nature of Dark Energy workshop, UAM/IFT, Madrid, Spain

 $\bf April~2011~$ Invited talk at the fourth $\it MultiDark$ workshop, UAM/IFT, Madrid, Spain

Participation in Schools and Workshops March 2013 Cosmological Tests of Gravity (EUCLID Workshop) in Oxford, UK

November 2012 Barcelona supercomputing center school on *Parallel computing*, Barcelona, Spain

November 2011 MultiDark workshop, Matalascañas, Huelva, Spain

July 2011 Fronteras de la Computación workshop in Benasque, Spain

July 2011 ISAAP summer school in Heidelberg, Germany

March 2010 Fisher matrix forecasts and the iCosmo package, IFIC, Valencia, Spain

January 2010 MultiDark workshop, UAM, Madrid, Spain

PARTICIPATION IN RESEARCH PROJECTS

- June 2013 → Today El Proyecto de Cosmología Numérica MareNostrum: Un Laboratorio Virtual Sobre la Evolución del Universo MINECO (Spain) -AYA2012-31101
- May 2011 September 2014 Multimessenger approach for Dark Matter Detection. CSD2009-00064
- March 2011 June 2013 El Proyecto de Cosmología Numérica MareNostrum: Un Laboratorio Virtual Sobre la Evolución del Universo, AYA2009-13857-C03-02

IT Skills

- OS Linux, Android, Windows
- **Programming languages** Very good knowledge of C and C++, good knowledge of bash scripting, good knowledge of Java, basic knowledge of Android Java/XML app development, basics of Python and Fortran
- Parallel APIs Good knowledge of MPI and OpenMP, basics of CUDA for GPU
- Other languages/packages known IDL, TeX, HTML, gnuplot, OpenOffice, basics of Octave/Matlab

TEACHING EXPERIENCE

- September 2013 December 2013 Teaching assistant for Laboratiorio de Circuitos Electronicos (Laboratory of Electronics), Faculty of Engineering, UAM ... (60 h)
- September 2012 December 2012 Teaching assistant for Laboratiorio de Circuitos Electronicos (Laboratory of Electronics), Faculty of Engineering, UAM ... (60 h)
- November 2011 February 2012 Teaching assistant for Laboratiorio de Física para Biologos (Physics Laboratory for Biologists), UAM ... (20 h)
- September 2011 December 2011 Teaching assistant for Laboratiorio de Circuitos Electronicos (Laboratory of Electronics), Faculty of Engineering, UAM ... (40 h)
- **April 2011 June 2011** Teaching assistant for Laboratiorio de Física para Quimicos (Physics Laboratory for Chemists), UAM ... (24 h)
- November 2010 February 2011 Teaching assistant for Laboratiorio de Física para Biologos (Physics Laboratory for Biologists), UAM ... (36 h)
- September 2006 February 2007 Teaching assistant for Fisica 2 (General Physics 2), Department of Mathematics, Universitá degli Studi Roma 3 (40 h)

Foreign Languages Italian Mother tongue

English Excellent level, spoken and written (fluent)

Spanish Excellent level, spoken and written (fluent)

Serbo-Croatian Excellent level, spoken and written (fluent)

German Good level, spoken and written (conversation)

French Good level, spoken and written (conversation)

Russian Good level, spoken and written (conversation)

Hebrew Fair level, spoken and written (basic)

Portuguese Fair level, spoken and written (basic)