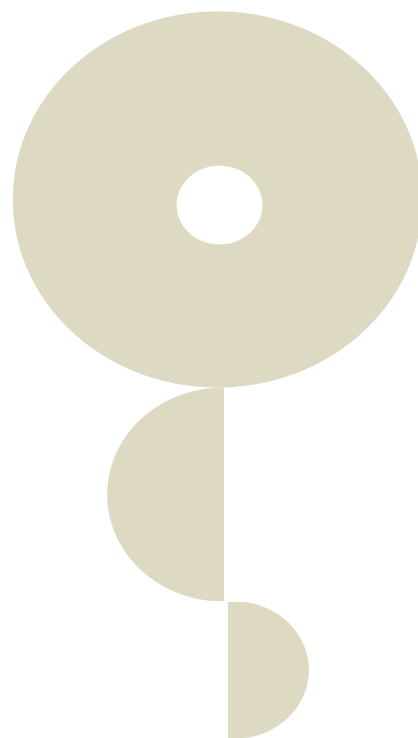


**Severo Ochoa Centres of
Excellence Programme**



Summary of Activities

Instituto de Física Teórica (IFT)

Date of the Report: 10/09/2015



Index

Programs, Workshops and Training Activities	4
Visitor Programme	7
IFT Seminars	16
IFT Colloquia	23
Human Resources	24
Phd Theses	26
IFT Publication List	28

Programs, Workshops and Training Activities co-financed by the Severo Ochoa Grant

Programs

1. PACT Program on “Fundamental Physics, CMB and LSS in the light of Planck satellite and DES”
7 Oct- 1 Nov 2013 (115 participants)
<https://workshops.ift.uam-csic.es/ws/pact2013>
2. nIFTy Cosmology: Numerical Simulations from Large Surveys
30 June - 18 July 2014 (61 participants)
<http://popia.ft.uam.es/nIFTyCosmology/Home.html>
3. Physics Challenges in the face of LHC-14
15-26 September 2014 (70 participants)
<https://workshops.ift.uam-csic.es/faceLHC14>
4. Identification of Dark Matter with a cross-disciplinary approach
27 April - 15 May 2015 (47 participants)
<https://workshops.ift.uam-csic.es/IDMCDA>
5. eNLarge Horizons
18 May - 5 June 2015 (77 participants)
<https://workshops.ift.uam-csic.es/NLHIFT>

Total number of participants in Programs: 370

Workshops

1. Why $m_H = 126$ GeV
25-27 September 2013 (109 participants)
<http://workshops.ift.uam-csic.es/WMH126/index.html>
2. The II Postgraduate Meeting on Theoretical Physics
9-11 October 2013 (57 participants)
<https://workshops.ift.uam-csic.es/149>
3. XIX IFT UAM-CSIC Xmas workshop
11-13 December 2013 (60 participants)
<http://www2.ift.uam-csic.es/workshops/Xmas13/>
4. Effective Field Theory for Quantum Many Body Systems
15-17th Jan 2014 (22 participants)
<https://workshops.ift.uam-csic.es/EFTforQMB>
5. Vth Iberian Strings 2014 (Palencia)
29-31 January 2014 (53 participants)
<https://workshops.ift.uam-csic.es/147>
6. 2nd Informal meeting on Scattering Amplitudes & the Multi-Regge Limit 2014
10-15 February 2014 (24 participants)
<https://workshops.ift.uam-csic.es/MRK2014>

7. Jornada de Supercomputación en el I.F.T.
5th March 2014 (50 participants)
<https://workshops.ift.uam-csic.es/HPC14>
8. FLAG-3 Kick-off Meeting & Workshop
19-22 May 2014 (25 participants)
9. HEFT2014- Higgs Effective Field Theories
27-30 September 2014 (88 participants)
<https://workshops.ift.uam-csic.es/HEFT2014>
10. Fine tuning, Anthropic and the String Landscape
8-10 October 2014 (91 participants)
<https://workshops.ift.uam-csic.es/anthropic>
11. Cosmology with Galaxy Clusters in the XXI century
4-7 November 2014 (106 participants)
<https://workshops.ift.uam-csic.es/ws/clustercosmology>
12. XX IFT UAM-CSIC Xmas workshop
10-12 December 2014 (60 participants)
<https://workshops.ift.uam-csic.es/ws/Xmas14>
13. Entangle this: Spacetime and matter
2-4 March 2015 (57 participants)
<https://workshops.ift.uam-csic.es/entanglethat>
14. LHC Working Group on Forward Physics and Diffraction
21-25 April 2015 (32 participants)
<https://workshops.ift.uam-csic.es/LHCFPWG2015>
15. String Phenomenology 2015
8-12 June 2015 (130 participants)
<https://workshops.ift.uam-csic.es/stringpheno15>
16. Invisibles '15 Workshop
27th June 2015 (179 participants)
<http://indico.cern.ch/event/351600/>

Total number of participants in Workshops: 1143

Training activities

- Schools

1. School on Cosmology tools
12th - 15th November 2013 (36 participants)
<https://workshops.ift.uam-csic.es/cosmolgytools13>
2. Invisibles '15 School
15th - 19th June 2015 (84 participants)
<http://indico.cern.ch/event/341178/>

Total number of participants in Schools: 120

- PhD Courses

2014-15, <http://members.ift.uam-csic.es/cpena/phdcourses.html>

1. Lectures on Supersymmetry and Supergravity in Curved Spaces and Superspaces, by I Bandos (IKERBASQUE and UPV/EHU, Bilbao), October 2014
2. Introduction to Supersymmetry, by D. López-Fogliani (U. Buenos Aires, Argentina), January-February 2015
3. Anomalies, by MA Vázquez Mozo (U. Salamanca), February 2015
4. Supersymmetry Phenomenology, by S Heinemeyer (IFCA, Santander), February-March 2015
5. Calculating Particle Interactions, by J Vermaseren (NIKHEF, Amsterdam), May 2015

Participants in PhD courses: **40**

Visitor Programme

IFT Severo Ochoa Distinguished Visiting Professors (11 visits)

Name	Arrival Date	Departure Date
Lipatov Nikolaevich, Lev	1/18/14	2/17/14
Luciano Maiani	4/19/14	7/7/14
Gia Dvali	10/2/14	10/31/14
Lisa Randall	10/6/14	10/11/14
Ignacio Cirac	3/6/15	3/6/15
Alexei Smirnov	4/8/15	4/23/15
Herbert Neuberger	5/11/15	6/11/15
Dmitri Kharzeev	5/12/15	5/26/15
Andrei Linde	6/7/15	6/17/15
Renata Kallosh	6/7/15	6/17/15
Lisa Randall	6/23/15	6/29/15

IFT Severo Ochoa Associate Researchers (34 visits)

Name	Arrival Date	Departure Date
Sven Heinemeyer	2/19/14	3/13/14
Silvia Pascoli	3/2/14	4/28/14
Joan Simon	6/9/14	6/20/14
Gerardo Aldazabal	6/16/14	6/21/14
Mattias Blennow	6/16/14	7/11/14
Stefano Rigolin	6/18/14	6/20/14
Antonio Delgado	6/23/14	6/27/14
Olga Mena	7/21/14	8/3/14
Kiwoon Choi	7/26/14	8/2/14
Sven Heinemeyer	7/29/14	7/30/14
Masonori Okawa	9/17/14	10/2/14
Antonio Delgado	9/22/14	26/09/14
Olga Mena	9/29/14	10/12/14
Silvia Pascoli	10/5/14	10/26/14
José Ramón Espinosa	10/15/14	11/15/14
Jos Vermaseren	10/31/14	12/1/14
Olga Mena	11/3/14	12/2/14

Antonio Delgado	1/7/15	1/9/15
Alejandro Ibarra	1/28/15	1/30/15
Frederic Nowacki	2/15/15	2/25/15
Sven Heinemeyer	2/18/15	2/18/15
Sven Heinemeyer	2/25/15	2/25/15
Silvia Pascoli	3/9/15	3/11/15
Antonio Delgado	4/6/15	4/10/15
Pilar Hernandez	4/7/15	4/10/15
José M. Gracia Bondía	4/20/15	6/16/15
Jos Vermaseren	4/29/15	6/1/15
Mariano Quirós	5/2/15	5/16/15
Maxim Chernodub	5/4/15	5/7/15
Olga Mena	5/5/15	5/7/15
Masanori Okawa	5/27/15	6/7/15
Gerardo Aldazábal	6/1/15	7/2/15
Ana María Font	6/2/15	6/14/15
Mattias Blennow	6/22/15	7/22/15

IFT Visitors (232 visits)

Nombre	Fecha de Llegada	Fecha de salida
Umut Gursoy	6/2/13	6/29/13
Cheng Chaho	6/2/13	8/19/13
Verónica Riquer	7/4/13	7/5/13
Yu Liang	7/4/13	8/19/13
Koichi Hamaguchi	9/1/13	10/3/13
Sebastián Montes Valencia	9/1/13	9/4/13
Dilip Kumar Ghosh	9/2/13	9/7/13
Beatrice Murdaca	9/2/13	9/29/13
Nana Geraldine Cabo Bizet	9/3/13	9/10/13
Francisco Caporale	9/3/13	12/1/13
Gerardo Martínez	9/6/13	3/7/14
Masanori Okawa	9/8/13	9/23/13
Csaba Balazs	9/9/13	9/22/13
Gian Paolo Vacca	9/15/13	9/20/13
Martin Hentschinski	9/16/13	9/21/13

Gregorio Herdoiza	9/16/13	9/20/13
Néstor Armesto Pérez	9/16/13	9/17/13
Joachim Bartels	9/16/13	9/19/13
Javier Martínez Magan	9/23/13	10/22/13
Jong Soo Kim	9/23/13	9/30/13
Javier Rubio	9/23/13	9/26/13
María Concepción González	9/24/13	9/24/13
Luis Aparicio	9/30/13	4/10/13
Michele Lucente	10/1/13	12/21/13
George Zoupanos	10/1/13	10/30/13
Ernesto Arganda	10/1/13	10/31/13
Joan Simon	10/6/13	10/8/13
Eliezer Rabinovici	10/6/13	10/8/13
Benjamin Freivogel	10/6/13	10/8/13
Christiana Pantelidou	10/14/13	10/15/13
José Alejandro Rosabal	10/14/13	10/18/13
Johan Comparat	10/21/13	10/28/13
Viatchelav Mukhanov	10/24/13	10/28/13
Yegor Korovin	10/27/13	10/29/13
Nicoló Piazzalunga	10/29/13	11/7/13
María del Pilar García del Moral	11/1/13	3/4/14
Iñiqui García Etxebarria	11/3/13	11/30/13
Pablo Soler Gomis	11/4/13	11/22/13
Krtistan Jensen	11/9/13	11/13/16
María Eugenia Catalán	11/11/13	11/15/13
Roberto Alfreso Lineros	11/20/13	11/21/13
Jerome Ribot	11/25/13	11/29/13
Alberto Romagnoni	11/25/13	11/29/13
Nassim Nozorgnia	11/25/13	11/29/13
Mateuz Koren	11/25/13	11/29/13
Eugenio Megías	11/25/13	12/6/13
Francisco Peña	11/25/13	1/13/14
Daniel Schmeier	12/1/13	12/6/13
Michael Trott	12/1/13	1/13/14
Johannes Zaanen	12/1/13	12/4/13

Liam Keegan	12/2/13	12/6/13
Luigi Del Debbio	12/2/13	12/5/13
Nicoló Piazzalunga	12/2/13	12/6/13
Enrico Bertuzzo	12/3/13	12/5/13
Luis Aparicio	12/10/13	1/9/14
Zhang Yunlog	12/11/13	12/21/13
Pavel Buidovich	12/16/13	12/17/13
Luca Taddia	12/16/13	12/20/13
Piort Migdal	12/16/13	12/20/13
Alberto Ramos	12/19/13	1/4/14
Nesseris, Savvas	1/1/14	2/15/14
Miguel Zumalacárregui	1/3/14	1/20/14
Wieland Staessens	1/8/14	1/29/13
Julien Baglio	1/13/14	1/17/14
Nicoló Piazzalunga	1/20/14	2/7/14
Romuald Janik	1/28/14	2/1/14
Matti Javinen	2/1/14	2/5/14
Montes Valencia, Sebastián	2/1/14	2/28/14
Subir sacdev	2/6/14	2/8/14
Daniel López Fogliani	2/9/14	3/2/14
Anatoly Klypon	2/9/14	2/15/14
Jean-Pau Kneib	2/10/14	2/12/14
Carlo Giocolo	2/10/14	2/12/14
Hong-Hao Tu	2/17/14	3/1/14
Anastasios Taliotis	2/17/14	3/10/14
Fabio Zandanel	2/26/14	2/28/14
Montes Valencia, Sebastián	3/1/14	3/31/14
Miguel Figueiredo	3/2/14	3/9/14
Joris Vanhoof	3/4/14	3/7/14
Eduardo Conde Pena	3/5/14	3/19/14
Jaime Tattersall	3/8/14	3/13/14
Nicoló Piazzalunga	3/10/14	3/28/14
Pilar Hernández	3/17/14	3/21/14
Stephen Parke	3/17/14	3/21/14
Juan Jose Gomez-Cadenas	3/17/14	3/21/14

Thomas Schwetz	3/21/14	3/24/14
Adam Bolton	3/22/14	3/29/14
Michele Lucente	3/24/14	4/1/14
Alejandro Castedo	3/26/14	3/28/14
Yolanda Lozano	3/27/14	3/28/14
Ki-Young Choi	3/29/14	4/2/14
Anibal Damián Medina	3/29/14	4/4/14
Hee-Cheol Kim	4/5/14	4/9/14
Antonio Delgado	4/7/14	4/11/14
Eduardo Conde Pena	4/7/14	4/17/14
Gerald Dunne	4/19/14	4/23/14
Marcos Pellejero Ibáñez	4/23/14	5/21/14
Vijay Balasubramanian	4/23/14	4/27/14
Kari Rummukainen	4/27/14	4/29/15
Feruglio Ferruccio	5/5/14	5/16/14
Nicoló Piazzalunga	5/8/14	6/20/14
Mario Galante	5/14/14	5/19/14
Javier Molina	5/16/14	5/25/14
Zumalacarregui, Miguel	5/17/14	5/30/14
Biagio Lucini	6/1/14	6/3/14
María Eugenia Cabrera	6/1/14	7/31/14
P. Fritsch	6/2/14	6/6/14
Kundu	6/2/14	6/5/14
Daniel Hernández	6/4/14	6/7/14
Steve Murray	6/6/14	7/13/14
Pablo Soler	6/9/14	6/13/14
Polosa	6/11/14	6/18/14
Mauro Painutto	6/11/14	6/14/14
Amanda Pagul	6/14/14	8/1/14
Timo Weigand	6/16/14	6/18/14
Fernando Quevedo	6/16/14	6/18/14
Iñaki García-Etxebarria	6/16/14	6/19/14
Luis Aparicio	6/16/14	6/17/14
Kirill Kanshin	6/17/14	6/22/14
Gino Isidori	6/24/14	6/30/14

Naba Kumar	6/26/14	6/26/14
José Miguel No	6/26/14	7/7/14
Piotr Migdal	6/30/14	7/18/14
Cheng Zhao	7/1/14	8/7/14
Lotfi Boubekeur	7/1/14	7/31/14
Daniel López-Fogliani	7/1/14	7/17/14
Daniel Carlos Cabra	7/6/14	7/16/14
Roberta Diamanti	7/8/14	7/16/14
Olivera Miskovic	7/13/14	7/19/14
Jihn Kim	7/14/14	7/17/14
Rodrigo Olea	7/14/14	7/14/14
Chakrabortty	7/19/14	7/22/14
Michel Soler	7/28/14	8/1/14
Roberto Vega	8/6/14	8/14/14
Lotfi Boubekeur	9/1/14	9/30/14
Daniel Lopez Fogliani	9/8/14	9/16/14
Alberto Ramos	9/12/14	9/18/14
Hanno Horch	9/15/14	9/17/14
Eung Jin	9/20/14	10/6/14
Elizabeth Jenkins	9/21/14	10/1/14
Valentina de Romero	9/22/14	10/31/15
Liam Keegan	9/23/14	02/10/14
Oscar Cata	10/1/14	10/4/14
Filipe Joaquim	10/2/14	10/4/14
Ferruccio Feruglio	10/2/14	10/4/14
Johannes Bergstrom.	10/5/14	11/6/14
Rafael Porto	10/6/14	10/10/14
Nicoló Piazzalunga	10/6/14	11/7/14
Troels Haugboelle	10/9/14	10/9/14
Igor Bandos	10/13/14	10/31/14
Tigran Kalaydzhyan	10/13/14	10/18/14
Joan Elias-Miro	10/20/14	11/14/14
Dmitri Sorokin	10/26/14	11/1/14
José Daniel Madrigal	11/1/14	11/16/14
José Ignacio Latorre	11/16/14	11/18/14

Odintsov, Sergey	11/19/14	11/21/14
Ernesto Arganda	11/20/14	11/21/14
Roberto Morales	11/20/14	11/21/14
Francisco Peña-Benitez	11/22/14	11/30/14
Yun Jiang	11/23/14	11/25/14
Martín Hentschinski	11/24/14	12/5/14
Hanno Horch	11/25/14	11/28/14
Diederik Roest	11/26/14	11/29/14
Germano Nardini	11/28/14	12/4/14
Mitsutoshi Fujita	12/1/14	12/5/14
Chiara Arina	12/1/14	12/4/14
Nicoló Piazzalunga	12/1/14	12/18/14
Drazen Glavan	12/3/14	12/5/14
Ernesto Arganda	12/10/14	12/10/12
María Eugenia Cabrera	12/12/14	1/21/15
Miguel Ibáñez	12/15/14	12/18/14
Mauro Papinutto	12/15/14	12/17/14
Javier Molina	12/15/14	12/19/14
Alberto Ramos	12/19/14	1/9/15
Miguel Zumalacarregui	1/7/15	1/9/15
Beatrice Murdaca	1/8/15	2/26/15
Jacobo López Pavón	1/9/15	1/14/15
Igor Bandos	1/14/15	1/17/15
Jose D. Edelstein	1/15/15	1/18/15
Kepa Sousa Sánchez	1/18/15	1/21/15
Guillermo Ballesteros	1/19/15	3/20/15
Nicoló Piazzalunga	1/19/15	2/27/15
Raúl Jiménez	1/20/15	1/22/15
Suresh Nampuri	1/26/15	1/30/15
Eric Vernier	1/27/15	1/30/15
Veronica Sanz	1/29/15	1/30/15
Ken Mimasu	1/29/15	1/30/15
José Miguel No	1/29/15	1/30/15
Angelo Casatela	2/1/15	4/30/15
Michele Lucente	2/2/15	2/6/15

Valentina de Romeri	2/2/15	2/6/15
David Valls	2/3/15	2/5/15
Daniel Mayani	2/5/15	2/6/15
Johannes Bergstrom	2/6/15	2/12/15
Miguel Angel Vázquez Mozo	2/6/15	2/6/15
Alain Bondel	2/9/15	2/9/15
Javier Virto	2/19/15	2/20/15
Ivo Sachs	2/22/15	2/25/15
Ilya Shapiro	2/23/15	2/27/15
Isabel Campos	2/24/15	2/26/15
Carlos Shabasi	3/4/15	3/13/15
Belwal Swasti	3/15/15	3/20/15
Douglas Ross	3/16/15	4/1/15
Roberto Valandro	3/16/15	3/27/15
David García Cerdeño	3/26/15	4/12/15
Carlos Hoyos	4/6/15	4/10/15
Alessio Marrani	4/13/15	4/19/15
Miguel A. Sánchez-Conde	4/19/15	4/22/15
Mateo García	5/4/15	5/8/15
Hisakazu Minakata	5/6/15	6/6/15
Fabio Riccioni	5/10/15	5/16/15
Eric Bergshoeff	5/10/15	5/14/15
Victor Berezin	5/11/15	5/14/15
Miguel A. Sánchez-Conde	5/17/15	5/19/15
Carlos Shabasi	5/18/15	5/29/15
Jacobo López Pavón	5/18/15	5/29/15
María Eugenia Cabrera	5/20/15	7/9/15
Iof Bena	5/20/15	5/20/15
Valerie Domcke	5/21/15	5/22/15
Miguel Zumalacarregui	5/22/15	6/1/15
Clemens Wieck	5/31/15	6/12/15
Martín Morudo Prado	6/1/15	6/1/15
Francesco Muia	6/2/15	7/22/15
Pablo Soler	6/8/15	6/26/15
Adolfo Guarino	6/8/15	6/12/15

Hanno Horch	6/8/15	6/12/15
Diego Correa	6/9/15	6/26/15
Sven Heinemey	6/23/15	6/24/15
Kirill Kanshin	6/29/15	7/11/15
Dam Thanh Son	6/29/15	6/29/15
Geli Vozmediano	6/29/15	6/29/15

IFT Seminars

1. Is the composite fermion a Dirac particle?
Dam T. Son
Martes, 30 Junio, 2015
2. Cusped Wilson lines and ladders
Diego Correa
Jueves, 18 Junio, 2015
3. Constraining the reheating temperature after inflation
Valerie Domcke
Lunes, 25 Mayo, 2015
4. 3 flavor mixing of neutrinos: Still interesting? Yes, there is something new!
Hisakazu Minakata
Lunes, 18 Mayo, 2015
5. Spherically symmetric conformal gravity and "gravitational bubbles"
Victor Berezin
Lunes, 11 Mayo, 2015
6. Dynamical Generation of Scales: from Inflation to Dark Matter
Alberto Salvio
Lunes, 4 Mayo, 2015
7. Evidence for dark matter self-interactions in A3827?
Felix Kahlhoefer
Lunes, 27 Abril, 2015
8. Properties of the BFKL Pomeron with Running Coupling
Douglas Ross
Jueves, 26 Marzo, 2015
9. The effective theory of fluids and dark energy
Guillermo Ballesteros
Lunes, 23 Marzo, 2015
10. Can universality be extended to Potts antiferromagnets?
Jesus Salas
Jueves, 12 Marzo, 2015
11. Neutrinos in Cosmology and Astrophysics
Viviana Niro
Lunes, 9 Marzo, 2015
12. Let us talk about particle physics phenomenology
Grigorios Chachamis
Lunes, 2 Marzo, 2015
13. Renormalization and stability in higher derivative models of quantum gravity
Ilya Shapiro
Jueves, 26 Febrero, 2015
14. The running coupling and B-physics from lattice QCD computations
Patrick Fritzsche
Lunes, 23 Febrero, 2015

15. Flavoured Conspiracies and Conundrums
Javier Virto
Viernes, 20 Febrero, 2015
16. CERN: the next 60 years and 100 kilometers
Alain Blondel
Lunes, 9 Febrero, 2015
17. Just enough inflation: power spectrum modifications at large scales
Francisco Pedro
Lunes, 2 Febrero, 2015
18. Hot Attractors
Suresh Nampuri
Jueves, 29 Enero, 2015
19. Inflation in the Time of Mixing Axions
Wieland Staessens
Lunes, 26 Enero, 2015
20. Life in the Universe
Raul Jiménez
Jueves, 22 Enero, 2015
21. Perturbative Stability along the Supersymmetric Directions of the Landscape
Kepa Sousa
Lunes, 19 Enero, 2015
22. Causality Constraints on Corrections to the Graviton Three-Point Coupling
José Edelstein
Jueves, 15 Enero, 2015
23. Recent results of dark matter searches with the Fermi Large Area Telescope
Miguel Ángel Sánchez Conde
Jueves, 18 Diciembre, 2014
24. Shape Dynamics: a new tool for General Relativity, Cosmology and Quantum Gravity
Flavio Mercati
Lunes, 15 Diciembre, 2014
25. Late-time quantum backreaction of a non-minimally coupled scalar
Drazen Glavan
Jueves, 4 Diciembre, 2014
26. Two-minute meeting
Everyone
Jueves, 4 Diciembre, 2014
27. Towards a Holographic Bose-Hubbard Model
Fujita Mitsutoshi
Lunes, 1 Diciembre, 2014
28. Unity of tree-level superstring amplitudes
Stephan Stieberger
Jueves, 27 Noviembre, 2014
29. Two-Higgs doublet model and singlet scalar dark matter
Yun Jiang
Lunes, 24 Noviembre, 2014

30. Unification of inflation with dark energy in viable modified gravity and neutron stars
Sergei Odintsov
Jueves, 20 Noviembre, 2014
31. Exploring SU(3) structure moduli spaces with integrable G2 structure
Xenia de la Ossa
Lunes, 17 Noviembre, 2014
32. On the renormalization of the electroweak chiral Lagrangian with a Higgs
Pedro Machado
Jueves, 30 Octubre, 2014
33. Corpuscular Cosmology
Gia Dvali
Lunes, 27 Octubre, 2014 - 15:00
34. Chiral superfluidity in quark matter
Tigran Kalaydzhyan
Jueves, 16 Octubre, 2014
35. Searches for new physics: lepton flavour phenomenology and indirect dark matter signatures
Valentina de Romeri
Lunes, 13 Octubre, 2014
36. Non-local quantum effects in cosmology
John Donoghue
Jueves, 2 Octubre, 2014
37. QCD axion with high scale inflation
Kiwoon Choi
Lunes, 28 Julio, 2014
38. Spin(7)-manifolds from exceptionally generalized geometry
Carlos S. Shahbazi
Jueves, 24 Julio, 2014
39. The revisited S-matrix method in open superstring theory
Ricardo Medina
Lunes, 21 Julio, 2014
40. Holography and Weyl anomaly in AdS gravity with torsion
Olivera Miskovic
Jueves, 17 Julio, 2014
41. Everything on QCD axion, and dark energy from discrete symmetries
Jihn E. Kim
Martes, 15 Julio, 2014
42. India-Based neutrino Observatory (INO) Project
Naba Mondal
Jueves, 26 Junio, 2014
43. Tetraquarks
Antonello Polosa
Lunes, 16 Junio, 2014
44. The eBOSS and DESi projects.
Johan Comparat
Jueves, 12 Junio, 2014

45. U(1) portals into hidden sectors
Pablo Soler
Lunes, 9 Junio, 2014
46. Large anomalous dimensions near the conformal window
Biagio Lucini
Lunes, 2 Junio, 2014
47. Direct dark matter searches in SuperCDMS
Elias López-Asamar
Jueves, 29 Mayo, 2014
48. Local and Nonlocal Chiral, Conformal and Superconformal anomaly actions and the Dilaton/Axion Multiplet
Claudio Corianò
Lunes, 26 Mayo, 2014
49. New Dark Matter Searches in the Gamma-ray Sky Observed by the Fermi-LAT
Germán A. Gómez Vargas
Lunes, 12 Mayo, 2014
50. Combining Flavour and CP Symmetries
Ferruccio Feruglio
Jueves, 8 Mayo, 2014
51. Consequences of the Higgs discovery for the SM and beyond
Gino Isidori
Lunes, 5 Mayo, 2014
52. Infrared conformal gauge theory on the lattice
Kari Rummukainen
Lunes, 28 Abril, 2014
53. Resurgence and Quantum Field Theory
Gerald Dunne
Martes, 22 Abril, 2014
54. Phenomenology of the LSSM
Antonio Delgado
Jueves, 10 Abril, 2014
55. The Majorana quest: from theory to experiments
Silvia Pascoli
Jueves, 3 Abril, 2014
56. Fine-tuning in SUSY
Anibal Medina
Lunes, 31 Marzo, 2014
57. Hints on 5d fixed point theories from non-Abelian T-duality
Yolanda Lozano
Jueves, 27 Marzo, 2014
58. On the neutrino mass spectrum
Thomas Schwetz
Lunes, 24 Marzo, 2014

59. Intrinsic Degeneracies and the uncertainty on determining Δ_{CP} in Long Baseline Neutrino Experiments
Stephen Parke
Lunes, 17 Marzo, 2014
60. The Flavor of Baryon Number Violation
Rodrigo Alonso
Jueves, 13 Marzo, 2014
61. How low can SUSY go? Monojets, matching and compressed spectra
Jamie Tattersall
Lunes, 10 Marzo, 2014
62. Testing Dark Matter distribution with local astrophysical observations
Fabio Iocco
Jueves, 6 Marzo, 2014
63. Sterile Neutrinos in the early universe: the role of asymmetry
Pasquale Serpico
Lunes, 3 Marzo, 2014
64. Towards an on-shell formulation of perturbative field theory
Paolo Benincasa
Lunes, 24 Febrero, 2014
65. Is still M-theory a candidate for unification?
Maria Pilar Garcia del Moral
Jueves, 20 Febrero, 2014
66. Unveiling the Cosmic Web and the initial conditions of the Universe
Francisco-Shu Kitaura
Jueves, 13 Febrero, 2014
67. Mapping the distant universe with emission line galaxies and quasars
Jean-Paul Kneib
Lunes, 10 Febrero, 2014
68. Holographic models for QCD in the Veneziano limit
Matti Järvinen
Lunes, 3 Febrero, 2014
69. Looking for LUV in all the wrong places
Cedric Weiland
Jueves, 30 Enero, 2014
70. BCS instabilities of electron stars to holographic superconductors
Yawen Sun
Lunes, 27 Enero, 2014
71. Bose-Fermi competition in holographic metals
Yan Liu
Jueves, 23 Enero, 2014
72. Topological strings and 5d T_N partition functions
Hirotaka Hayashi
Lunes, 20 Enero, 2014
73. Trilinear Higgs coupling at the LHC in the Standard Model and Two-Higgs-Doublet-Model
Julien Baglio
Jueves, 16 Enero, 2014

74. Recent progress in Higgs Effective Field Theory(ies)
Michael Trott
Lunes, 13 Enero, 2014
75. Anomalous Transport on the Lattice
Pavel Buividovich
Lunes, 16 Diciembre, 2013
76. Thermal axion production
Alberto Salvio
Lunes, 9 Diciembre, 2013
77. Dirac gauginos, R-symmetry and the 125 GeV Higgs boson
Enrico Bertuzzo
Jueves, 5 Diciembre, 2013
78. Checkmating your favourite BSM mode
Daniel Schmeier
Lunes, 2 Diciembre, 2013
79. Two-minute meeting
Everyone
Jueves, 28 Noviembre, 2013
80. A novel approach to the real-time dynamics of strongly coupled fluids
Marco Panero
Lunes, 25 Noviembre, 2013
81. Universality classes and attractors of inflation
Diederik Roest
Jueves, 21 Noviembre, 2013
82. Direct dark matter detection and astrophysical uncertainties
Nassim Bozorgnia
Lunes, 18 Noviembre, 2013
83. Science with CMB spectral distortions: an unexplored window to the early Universe
Jens Chluba
Lunes, 11 Noviembre, 2013
84. On the field theory dual to Lifshitz space.
Yegor Korovin
Lunes, 28 Octubre, 2013
85. Extended geometry, tensor hierarchy and gauged maximal supergravity
Alejandro Rosabal
Jueves, 17 Octubre, 2013
86. p-wave superconductors and spatial modulation
Christiana Pantelidou
Lunes, 14 Octubre, 2013
87. The revival of two old ways to measure the electron-neutrino mass
Alvaro de Rujula
Jueves, 10 Octubre, 2013
88. Future CMB Space Missions: PRISM, Pixie, LiteBird, etc.
Martin Bucher
Lunes, 7 Octubre, 2013

89. Axino dark matter in Peccei-Quinn extended minimal supergravity
Csaba Balazs
Lunes, 16 Septiembre, 2013
90. Heterotic Mini-Landscape in blow-up
Nana Cabo Bizet
Lunes, 9 Septiembre, 2013
91. Implications of 98 GeV and 125 GeV Higgs scenario in non-decoupling SUSY with updated ATLAS, CMS and PLANCK data
Dilip Kumar Ghosh
Lunes, 2 Septiembre,
92. Testing the nature of dark energy using galaxy redshift surveys
Florian Beutler
Jueves, 11 Julio, 2013
93. Neutrino Mixing and Masses from a Minimum Principle
Luciano Maiani
Jueves, 4 Julio, 2013

IFT Colloquia

1. Waiting for Higgs
Chris Llewellyn-Smith
(Oxford University)
Thursday, 3 October, 2013
2. Quantum criticality and high temperature superconductivity
Subir Sachdev
(Harvard University, USA)
Thursday, 6 February, 2014
3. Gravitational Waves: a new window into the origin of the Universe
Juan García-Bellido
(UAM & IFT)
Friday, 4 April, 2014
4. The maps inside your head: How the brain represents sensory and cognitive spaces
Vijay Balasubramanian
(University of Pennsylvania, USA)
Thursday, 24 April, 2014
5. Quantum Composition of Space
Gia Dvali
(Ludwig Maximilians University & Max Planck Institute for Physics, Munich & New York University)
Thursday, 22 May, 2014
6. High Energy Physics after the Higgs boson discovery
Luciano Maiani
(Roma University, La Sapienza, Italy)
Thursday, 5 June, 2014
7. Quantum simulations of high energy physics models
Ignacio Cirac
(Max Planck Institute for Quantum Optics, Munich, Germany)
Friday, 6 March, 2015
8. Neutrinos: Normal or Special?
Alexei Smirnov
(Max Planck Institute for Nuclear Physics, Heidelberg, Germany)
Friday, 10 April, 2015
9. The chiral magnetic effect: from quark-gluon plasma to Dirac semimetals
Dmitri E. Kharzeev
(Stony Brook University, New York, USA)
Friday, 22 May, 2015
10. Inflation, supergravity and cosmological attractors
Andrei Linde
(Stanford University, California, USA)
Tuesday, 16 June, 2015

Human Resources

Postdoctoral Researchers with Severo Ochoa funding

1. Chachamis Grigorios	15 / 10 / 2014 - 14 / 10 / 2016
2. Fritzsck Patrick	01 / 11 / 2014 - 31 / 10 / 2016
3. Ghosh Pradipta	16 / 04 / 2015 - 15 / 09 / 2015
4. Grefe Michele	15 / 10 / 2013 - 14 / 10 / 2014
5. Iocco Fabio	14 / 10 / 2013 - 30 / 11 / 2014
6. Kim Jong Soo	01 / 10 / 2013 - 30 / 09 / 2015
7. Liu Yan	24 / 10 / 2013 - 22 / 10 / 2015
8. López Elías	01 / 02 / 2015 - 31 / 08 / 2015
9. Majeroto Elisabetta	01 / 02 / 2015 - 30 / 09 / 2015
10. Nesseris Savas	01 / 05 / 2014 - 30 / 09 / 2014
11. Panero Marco	14 / 10 / 2013 - 31 / 10 / 2014
12. Salvio Alberto	14 / 10 / 2014 - 13 / 10 / 2015
13. Sanz-Cillero Juan José	10 / 09 / 2014 - 31 / 08 / 2016
14. Staessens Wieland	14 / 10 / 2014 - 13 / 10 / 2016
15. Sun Yawen	24 / 10 / 2013 - 22 / 10 / 2015
16. Villamaríz Rosa María	19 / 02 / 2015 - 18 / 05 / 2015

Predocctoral Researchers with Severo Ochoa funding

Iniciación a la Investigación SO(IFT)

1. González Sergio	20 / 11 / 2013 - 19 / 11 / 2014
2. Sáez Rocío	11 / 11 / 2013 - 10 / 11 / 2014
3. Salvador Ana Isabel	20 / 11 / 2013 - 11 / 11 / 2014

Formación de doctores MINECO -Severo Ochoa

1. Escobar Dagoberto	16 / 02 / 2015 - 15 / 02 / 2019
2. Fernández Pedro	16 / 01 / 2014 - 15 / 01 / 2018
3. Landete Aitor	10 / 06 / 2014 - 09 / 06 / 2018
4. Lara Iñaki	16 / 12 / 2014 - 15 / 12 / 2018
5. Marcos María Cristina	16 / 01 / 2015 - 30 / 04 / 2015
6. Martínez Iván Jesús	01 / 03 / 2014 - 28 / 02 / 2018
7. Montes Sebastián	01 / 04 / 2014 - 31 / 03 / 2018
8. Preti David	16 / 03 / 2014 - 15 / 03 / 2018
9. Quilis Javier	01 / 02 / 2015 - 31 / 01 / 2018
10. Schwieger Sebastian	16 / 04 / 2015 - 15 / 04 / 2019
11. Stoppacher Doris	16 / 01 / 2015 - 15 / 01 / 2019
12. Torrenti Francisco	01 / 02 / 2014 - 31 / 01 / 2018

Investigadores predoctorales "la Caixa"-Severo Ochoa

1. Albareti Tarantino Franco Dante	01 / 10 / 2014 - 30 / 09 / 2018
2. Carta Federico	01 / 10 / 2014 - 01 / 10 / 2018
3. Gordo Gómez David	01 / 10 / 2014 - 30 / 09 / 2018
4. Kpatcha Essodjolo	01 / 10 / 2014 - 30 / 09 / 2018

Investigadores predoctorales SO(IFT)

1. Abajo Javier	15 / 10 / 2013 - 14 / 03 / 2014
2. Da Silva Emilia	01 / 10 / 2013 - 31 / 12 / 2013
3. Endress Eric	15 / 10 / 2013 - 15 / 04 / 2014
4. González Sergio	01 / 12 / 2014 - 30 / 06 / 2017
5. Herrero Mario	15 / 10 / 2013 - 14 / 10 / 2016
6. Salvador Ana Isabel	17 / 11 / 2014 - 30 / 06 / 2017
7. Yepes Juan Alberto	21 / 01 / 2014 - 20 / 12 / 2014

Phd Theses

Title	Phd	Date of thesis defence
Broken symmetries and transport in holography	Amadeo Jiménez Alba Supervisor: Karl Landsteiner	21 Mayo 2015 - 11:30
Supergravity, black holes and holography	Pablo Bueno Gómez Supervisor: Tomás Ortín	20 Mayo 2015 - 12:00
The Higgs sector, SUSY breaking and Inflation in String Theory	Irene Valenzuela Supervisor: Luis Ibañez	15 Jun 2015 - 11:30
A complementary approach for the identification of dark matter	Miguel Peiró Supervisor: David G. Cerdeño	2 Jul 2014 - 11:00
Applications of Holography to Condensed Matter Physics	Luis Melgar Supervisor: Karl Landsteiner	11 Sep 2014 - 12:00
Discrete gauge symmetries in string theory	Mikel Berasaluce González Supervisor: Ángel Uranga	17 Jun 2014 - 11:30
Flavour hierarchies and unification in String Theory	Diego Regalado Supervisor: Fernando Marchesano	16 Jun 2014 - 12:00
On the role of the charm quark in the Delta I=1/2 rule	Eric Endress Supervisor: Carlos Pena	7 Feb 2014 - 12:00
Graviton scattering in the Regge limit	Eduardo Serna Supervisor: Agustín Sabio Vera Miguel Angel Vázquez Mozo	Sept 2014
The bosonic effective chiral Lagrangian with a light Higgs particle	Juan Yepes Supervisor: Belén Gavela	3 Oct 2014 - 12:00
Dynamical Yukawa Couplings	Rodrigo Alonso Supervisor: Belén Gavela	3 Jul 2013 - 11:30
Fast scramblers and event horizons	Javier Martínez Magán Supervisor: Prof. José Luis Fernández Barbón	7 Oct 2013 - 12:00

Title	Phd	Date of thesis defence
Dark Matter Searches in the Gamma-ray Sky with the Fermi-LAT Space Telescope	Germán A. Gómez Vargas Supervisor(s): Luis Labarga, Carlos Muñoz	28 Oct 2013 - 12:00
High energy resumptions & QCD phenomenology	Clara Salas Supervisor: Agustín Sabio Vera	16 Sep 2013 - 12:00
The Flavour of Supersymmetry: Phenomenological implications of sfermion mixing	Miguel Arana Catania Supervisor: María José Herrero Solans, Sven Heinemeyer	12 Dic 2013 - 12:30
The High Energy Limit of QCD and N=4 SYM & the Effective Action Approach	José Daniel Madrigal Martínez Supervisor: Agustín Sabio Vera	17 Sep 2013 - 12:00
Time Evolution of Holographic Observables	João Aparício Supervisor: Esperanza López	17 Dic 2013 - 12:00

IFT Publication List

July 2013 - June 2015

Publications Summary Table

		Journals	Proceed.	#All	Citations
WG1	The origin of mass	[1–16]	[17–20]	20	591
WG2	Beyond the SM at the LHC	[21–36]	[37]	17	273
WG3	The astroparticle and cosmology frontier	[38–134]	[135–143]	106	2,916
WG4	Quantum gravity and string theory	[144–215]	[216–228]	85	1,045
WG5	The field theory & non-perturbative frontier	[229–266]	[267–299]	71	626
WG6	Flavour and neutrino physics	[300–331]	[332–339]	40	504
WG7	Condensed matter & quantum information	[340–360]		21	428

Publications in Journals and Proceedings

- [1] R. Alonso, I. Brivio, B. Gavela, L. Merlo, and S. Rigolin, *Sigma Decomposition*, *JHEP* **12** (2014) 034, [[arXiv:1409.1589](#)].
- [2] C. Arina, V. Martin-Lozano, and G. Nardini, *Dark matter versus $h \rightarrow \gamma\gamma$ and $h \rightarrow \gamma Z$ with supersymmetric triplets*, *JHEP* **08** (2014) 015, [[arXiv:1403.6434](#)].
- [3] I. Brivio, T. Corbett, O. J. P. Éboli, M. B. Gavela, J. Gonzalez-Fraile, M. C. Gonzalez-Garcia, L. Merlo, and S. Rigolin, *Disentangling a dynamical Higgs*, *JHEP* **03** (2014) 024, [[arXiv:1311.1823](#)].
- [4] I. Brivio, O. J. P. Éboli, M. B. Gavela, M. C. Gonzalez-Garcia, L. Merlo, and S. Rigolin, *Higgs ultraviolet softening*, *JHEP* **12** (2014) 004, [[arXiv:1405.5412](#)].
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- [6] J. A. Casas, J. M. Moreno, K. Rolbiecki, and B. Zaldivar, *Implications of light charginos for Higgs observables, LHC searches and dark matter*, *JHEP* **09** (2013) 099, [[arXiv:1305.3274](#)].
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- [12] S. Heinemeyer, J. Hernandez-Garcia, M. J. Herrero, X. Marcano, and A. M. Rodriguez-Sanchez, *Radiative corrections to M_h from three generations of Majorana neutrinos and sneutrinos*, *Adv. High Energy Phys.* **2015** (2015) 152394, [[arXiv:1407.1083](#)].
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- [16] A. Salvio, *Higgs Inflation at NNLO after the Boson Discovery*, *Phys. Lett.* **B727** (2013) 234–239, [[arXiv:1308.2244](#)].
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- [20] J. J. Sanz-Cillero, A. Pich, and I. Rosell, *Viability of light-Higgs strongly-coupled scenarios*, *PoS EPS-HEP2013* (2013) 308, [[arXiv:1310.6254](#)].
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