

CURRICULUM VITAE

Édgar Roldán

Associate Research Officer

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May 23, 2023

(a) Education

Universidad Complutense de Madrid	Madrid, Spain	Physics	Ph.D., <i>summa cum laude</i> , 2013
Date of PhD defense: 29th July, 2013			
Universidad Complutense de Madrid	Madrid, Spain	Fundamental Physics	M. Sc., 2009
Universidad Complutense de Madrid	Madrid, Spain	Physics	B. Sc., 2008

(b) Research and Professional Experience

2022 – present	Research Scientist, Quantitative Life Sciences Section, ICTP, Trieste (Italy)
2018 – 2022	Associate Research Officer, Quantitative Life Sciences Section, ICTP, Trieste (Italy)
2017 – 2018	MPIPKS Distinguished Postdoctoral Fellow, MPIPKS, Dresden (Germany)
2014 – 2017	Postdoctoral fellow, Max-Planck Institute for the Physics of Complex Systems, Dresden (Germany)
2010 – 2014	Postdoctoral fellow, Optical Tweezers Lab, ICFO, Castelldefels (Spain)
2013	Postdoctoral fellow, Instituto de Ciencias de Materiales de Madrid, Madrid (Spain)

(c) Awards and Honors

- CNRS Chercheur Invite Federation Doebelin
Universite Cote d'Azur, Nice (France), 2019
- CNRS Chair Joliot
ESPCI, Paris (France), 2019
- EPS-SNP Early Career Prize
European Physical Society, 2017
- EPL Distinguished Referee
European Physics Letters, 2017
- MPIPKS Distinguished Postdoctoral Fellow
Max Planck Institute for the Physics of Complex Systems, 2017
- Liquid Art Contest - scientific artwork public outdoor display
10th Liquid Matter Conference - LIQUIDS, Ljubljana (Slovenia), 2017
- Poster Prize, Gordon Research Conference "Stochastic Physics in Biology"
Ventura, California (United States), 2017
- International Springer Theses Prize
Springer, 2014
- PhD extraordinary prize
Universidad Complutense de Madrid, Madrid (Spain), 2014

(d) Publications

(* = corresponding or co-corresponding author)

1. SAM Loos, S Arabha, A Rajabpour, A Hassanali, É Roldán
Sci. Rep. **13** (1), 4517 (2023)
2. M Dorpinghaus, I Neri, É Roldán, F Jülicher
Theory Probab. Appl. **68** (1), 93 (2023)

3. PE Harunari, A Dutta, M Polettini, É Roldán*
Phys. Rev. X **12** (4), 041026 (2022)
4. G Tucci, É Roldán*, A Gambassi, R Belousov, F Berger, R G Alonso, and A J Hudspeth
Phys. Rev. Lett. **129**, 030603 (2022)
5. R Belousov, A Hassanali, É Roldán*
Phys. Rev. E **106** (1) 014103 (2022)
6. G Manzano, É Roldán*
Phys. Rev. E **105** (2), 024112 (2022)
7. H Hamzi, A Rajabpour, É Roldán, A Hassanali
J. Phys. Chem. B **126**, 3, 670 (2022)
8. G Manzano, D Subero, O Maillet, R Fazio, JP Pekola, É Roldán*
Phys. Rev. Lett. **126** (8), 080603 (2021)
Editor's Suggestion
9. M N Qaisrani, R Belousov, J U Rehman, E M Goliaei, I Girotto, R Franklin-Mergarejo, O Güell, A Hassanali, É Roldán*
Eur. Phys. J. E **44**, 132 (2021)
10. D Sánchez-Taltavull *et al.*
PLoS one **16**(11), e0258700 (2021)
11. É Roldán*, J Barral, P Martin, JMR Parrondo, F Jülicher
New J. Phys. **23**, 083013 (2021)
12. A Gopal, É Roldán*, S Ruffo
J. Phys. A **54** (16), 164001 (2021)
13. D Sánchez-Taltavull, V Castelo-Szekely, D Candinas, É Roldán, G Beldi
J. Theor. Biol. **523**, 110718 (2021)
Highlighted in ICTP news
14. G Tucci, A Gambassi, S Gupta, É Roldán*
Phys. Rev. Res. **2** (4), 043138 (2020)
15. AM Ramoso, JA Magalang, D Sánchez-Taltavull, JP Esguerra, É Roldán*
EPL **132** (5), 50003 (2020)
16. L Touzo, M Marsili, N Merhav, É Roldán
J. Stat. Mech. **2020** (9), 093403 (2020)
17. R Belousov, MN Qaisrani, AA Hassanali, É Roldán*
Soft Matter **16**, 9202 (2020)
Highlighted in back cover
18. A Guillet, É Roldán*, F Jülicher
New J. Phys. **22**, 123038 (2020)
19. J Bechhoefer, S Ciliberto, S Pigolotti, É Roldán*
J. Stat. Mech. **2020** (6), 064001 (2020)
20. S Singh, *et al.*
Phys. Rev. Lett. **122** (23), 230602 (2019)
21. G Manzano, R Fazio, É Roldán*
Phys. Rev. Lett. **122** (22), 220602 (2019)
22. R Chétrite, S Gupta, I Neri, É Roldán*
EPL **124** (6), 60006 (2019)
Editor's Suggestion
23. I Neri, É Roldán, S Pigolotti, F Jülicher
J. Stat. Mech. **2019** (10), 104006 (2019)

24. É Roldán*, P Vivo
Phys. Rev. E **100** (4), 042108 (2019)
 25. S Singh, *et. al*
Phys. Rev. B **99**, 115422 (2019)
 26. AC Barato, É Roldán*, IA Martínez, S Pigolotti
Phys. Rev. Lett. **121** (9), 090601 (2018)
 27. L Lacasa, *et al.*
Phys. Rev. X **8** (3), 031038 (2018)
 28. S Pigolotti, I Neri, É Roldán*, F Jülicher
Phys. Rev. Lett. **119** (14), 140604 (2017)
 29. I Neri, É Roldán*, F Jülicher
Phys. Rev. X **7** (1), 011019 (2017)
 30. IA Martínez, É Roldán*, L Dinis, RA Rica
Soft Matter **13** (1), 22-36 (2017)
 31. A Lisica, C Engel, M Jahnel, É Roldán, EA Galburt, P Cramer, SW Grill
PNAS **113** (11), 2946-2951 (2016)
 32. É Roldán, A Lisica, D Sánchez-Taltavull, SW Grill
Phys. Rev. E **93** (6), 062411 (2016)
 33. L Dinis, IA Martínez, É Roldán, JMR Parrondo, RA Rica
J. Stat. Mech. **2016** (5), 054003 (2016)
 34. IA Martínez, É Roldán, L Dinis, D Petrov, JMR Parrondo, RA Rica
Nature Phys. **12**, 67-70 (2015)
 35. É Roldán, I Neri, M Dörpinghaus, H Meyr, F Jülicher
Phys. Rev. Lett. **115** (25), 250602 (2015)
 36. IA Martínez, É Roldán, L Dinis, D Petrov, RA Rica
Phys. Rev. Lett. **114** (12), 120601 (2015)
 37. L Granger, J Mehliis, É Roldán, S Ciliberto, H Kantz
New J. Phys. **17**, 065005 (2015)
 38. É Roldán, IA Martínez, JMR Parrondo, D Petrov
Nature Phys. **10**, 457-461 (2014)
 39. É Roldán, IA Martínez, L Dinis, RA Rica
Appl. Phys. Lett. **104** (23), 234103 (2014)
 40. É Roldán
Irreversibility and Dissipation in Microscopic Systems, Springer Theses (2014)
 41. IA Martínez, É Roldán, JMR Parrondo, D Petrov
Phys. Rev. E **87** (3), 032159 (2013)
 42. L Lacasa, A Nunez, É Roldán, JMR Parrondo, B Luque
Eur. Phys. J. B **85** (6), 1-11 (2012)
 43. É Roldán, JMR Parrondo
Phys. Rev. E **85** (3), 031129 (2012)
 44. É Roldán, JMR Parrondo
Phys. Rev. Lett. **105**, 150607 (2010)
- (e) **Citation Metrics (Google Scholar)**
- Number of citations: 2694
 - h-index: 23
 - i-10 index: 35

(f) Preprints and Conference Proceedings

1. PL Muzzeddu, É Roldán, A Gambassi, A Sharma
arXiv preprint arXiv:2302.08954 (2023)
2. É. Roldán, I. Neri, R. Chetrite, S. Gupta, S. Pigolotti, F. Jülicher, K. Sekimoto
arXiv:2210.09983 (2022)
3. A Seif, S. A. M. Loos, G Tucci, É Roldán, S Goldt
arXiv:2205.14683 (2022)

(g) Organization of International Workshops, Conferences and Schools

1. Workshop "Signatures of Nonequilibrium Fluctuations in Life " | (smr 3836)
ICTP, Trieste (Italy), 2023
2. School on Stochastic Thermodynamics in Biology
IIT Bombay, Mumbai, India, December 2022
3. School on Information, Noise, and Physics of Life | (smr 3736)
Nis, Serbia, September 2022
4. Workshop "Non-Markovian Dynamics Far From Equilibrium" | (smr 3697)
ICTP Hybrid workshop, 2022
5. Workshop "Statistical Physics of Complex Systems" | (smr 3624)
ICTP-SISSA Hybrid workshop, 2021
6. ICTP-SISSA-CECAM Workshop on Molecular Dynamics
and its Applications to Biological Systems | (smr 3627)
ICTP-SISSA Online workshop, 2020
7. Joint QLS-CMSP Virtual Summer Retreat on Heat, Water, Noise, and Life | (smr 3550)
ICTP Online workshop, 2020
8. Workshop on Martingales in Finance and Physics
ICTP, Trieste (Italy), 2019
9. Biophysical conference
Hotel Amfora, Hvar (Croatia), 2019
10. Stochastic Thermodynamics: Experiment and Theory (STET 18)
Max Planck Institute for the Physics of Complex Systems, Dresden (Germany), 2018

(h) External Grants and Funding

- National Quantum Science and Technology Institute (NQSTI)
Award Number: PE00000023, Concession Decree No. 1564 of 11.10.2022
adopted by the Italian Ministry of Research, CUP J97G22000390007, 2022-2024
- ICAM funding for workshop "Signatures of Nonequilibrium Fluctuations in Life"
15.000 USD, awarded in 2023
- Project member of SNF Grant *Modelling a desynchronization strategy from the COVID-19 pandemic*
CHF 296.250 (275.400 EUR), 2020-2022
- Application ERC starting grant: Step 2 Interview
Final panel score: A (Ranking range 50%, not selected for funding), 2018

(i) Invited Talks, Lectures, and Seminars

1. Course on *Irreversibility in biology and active heat engines*
School on *Stochastic Thermodynamics in Biology*, IITB Mumbai (India), 2022
2. *Martingales for Physicists* (Online)
Statistical Physics and Complexity Webinar Series, University of Edinburgh, 2022

3. *Martingales for Physicists* (Online)
40th Samahang Pisika ng Pilipinas Physics Conference and Annual Meeting, 2022
4. *Biophysics and thermodynamics of active fluctuations in the ear of the bullfrog: an introduction* (Online)
1ST International Congress on Advanced Computational Modelling of Materials (CAMOM), Pretoria (South Africa), 2022
5. *Introduction to biophysics*
School of Information, Noise and Physics of Life, Nis (Serbia), 2022
6. *Entropy production in mechanosensation and perception* QLS Meeting - The adjacent possible of stochastic thermodynamics, Trieste (Italy), 2022
7. *Stochastic thermodynamics of mechanosensation and perception*
Coarse-grained description for non-equilibrium systems and transport phenomena, CNR Rome, 2022
8. *Bullfrog's active fluctuations: quantifying and learning dissipation* (Online)
Stochastic Thermodynamics: Recent Developments, ICTS (Bangalore, India) 2022
9. *Bullfrog's active fluctuations: quantifying and learning dissipation*
From Information to Control and Non-Equilibrium
Universite Cote d'Azur, Nice (France)
10. *Stochastic Thermodynamics of active fluctuations in the ear of the Bullfrog* (Online)
ICTP-IITB Joint Colloquium Series on Quantitative Life Sciences , 2022
11. *Martingales and Gambling in Stochastic Thermodynamics* (Online)
CSM Seminar, University of Amsterdam (The Netherlands), 2022
12. *Thermodynamics of Gambling Demons* (Online)
WOST II - Workshop on Stochastic Thermodynamics
Santa Fe Institute (United States), 2021
13. *Martingales and Gambling in Stochastic Thermodynamics*
Universita di Padova (Italy), 2021
14. *Thermodynamics of Gambling Demons* (Online)
WOST II - Workshop on Stochastic Thermodynamics
Santa Fe Institute (United States), 2021
15. *Introduction to Biophysics* (Online)
5th Biophysics School in Tanzania
University of Dodoma (Tanzania), 2021
16. *Martingales and gambling in stochastic thermodynamics*
Universita di Padova (Italy), 2021
17. *Thermodynamics of Gambling Demons* (Online)
University of Virginia, Richmond (United States), 2021
18. *Energetics of critical oscillators in active bacterial baths* (Online)
International Conference on Control of Self-Organizing Nonlinear Systems
TU Berlin, Berlin (Germany), 2021
19. *Motor de Carnot Browniano: estudiando la energia en la escala microscopica con pinzas opticas* (Online). Universidad del Valle de Guatemala (Guatemala), 2021
20. *Energetics of critical oscillators in active bacterial baths* (Online)
APS March Meeting (United States), 2021
21. *Resetting in biology* (Online)
Biosoft Seminar, Tel Aviv University, Tel Aviv (Israel), 2021

22. *Martingale theory for stochastic thermodynamics : extrema, stopping times, and gambling*
Nordita, Stockholm (Sweden), 2020
23. *Martingale stochastic thermodynamics* (Online)
ICTP-SISSA-CECAM Workshop on Molecular Dynamics
and its Applications to Biological Systems, 2020
24. *Lecithin as a Putative Biodegradable Blocker of SARS-CoV-2* (Online)
Joint QLS-CMSP Virtual Summer Retreat on Heat, Water, Noise, and Life, 2020
25. *First-passage times: a refreshing view of biophysical fluctuations*
Department of Physics, University of Zagreb, Zagreb (Croatia), 2020
26. *Heat engines and Carnot efficiency at the nanoscale*
DIPC - Donostia International Physics Centre
San Sebastian, Spain, 2020
27. *Brownian Carnot Engine*
University of Belgrade (Serbia), 2019
28. *Martingale theory for stochastic thermodynamics*
TINKOC, The 7th Conference on Information Theory and Complex Systems
Belgrade (Serbia) 2019
29. *Martingale theory for stochastic thermodynamics*
XXIV Convegno Nazionale di Fisica Statistica e dei Sistemi Complessi, Parma (Italy), 2019
30. *Martingale theory of stochastic thermodynamics* (Invited Talk)
Santa Marinella Research Institute, Santa Marinella (Italy), 2019
31. *Stochastic thermodynamics: and emerging, evolving field* (Invited Lecture)
Workshop on Martingales in Finance and Physics, ICTP, Trieste (Italy), 2019
32. *Experimental construction of a colloidal Carnot engine* (Invited Talk)
Workshop "Colloids as a Toolbox for Statistical Mechanics", University of Cambridge (UK), 2019
33. *Arrow of Time and Entropy Production in Active Fluctuations*
Michael Cates Group, University of Cambridge, Cambridge (UK), 2019
34. *Arrow of Time and Entropy Production in Active Fluctuations*
King's College London, London (UK), 2019
35. *Martingale theory for nonequilibrium thermodynamics*
Laboratoire Gulliver, ESPCI, Paris (France), 2019
36. *Arrow of time and entropy production in active fluctuations* (Invited Talk)
Workshop "Why measure entropy production?"
Princeton Center for Theoretical Sciences, Princeton (United States), 2018
37. *Arrow of Time and Entropy Production in Active Fluctuations* Hudspeth Lab, The Rockefeller University, New York (United States), 2018
38. *Extreme reductions of entropy production in an electronic double dot* (Invited Talk)
QT60 - Workshop on thermodynamics, thermoelectrics and transport in quantum devices
Hanasaari Cultural Centre, Espoo (Finland), 2018
39. *Arcsine laws and extreme values in stochastic thermodynamics*
PICO group, Aalto University, Aalto (Finland), 2018
40. *Arcsine laws and extreme values in stochastic thermodynamics* (Invited Talk)
CONES 2018 - Conference on Non-Equilibrium Systems
King's College London, London (UK), 2018
41. *Heat engines and Carnot efficiency at the nanoscale*
University of Southampton, Southampton (UK), 2018

42. *Martingale theory for nonequilibrium thermodynamics*
Laboratoire Dieudonne, Universite Cote d'Azur, Nice (France), 2018
43. *Arcsine laws and extreme values in stochastic thermodynamics*
Advanced Workshop on Nonequilibrium Systems in Physics, Geo sciences, and Life Sciences
ICTP, Trieste (Italy), 2018
44. *Records of entropy production in a double quantum dot*
DPG Meeting, Berlin (Germany), 2018
45. *Records of entropy production at the nanoscale*
Invited QLS Seminar, ICTP, Trieste (Italy), 2018
46. *Generic Properties of Stochastic Entropy Production*
30th Smoluchowski Symposium
Collegium Novum, Krakow (Poland), 2017
47. *Brownian Carnot engine**
LIQUIDS' 17 Liquid Matter Conference
Cankarjev dom Cultural and Congress Centre, Ljubljana (Slovenia), 2017
48. *Negative records of entropy production: the infimum law*
FQMT' 17 Frontiers of Quantum and Mesoscopic Thermodynamics
Orea Hotel Pyramida, Prague (Czech Republic), 2017
49. *Martingale theory for nonequilibrium thermodynamics*
Climate Fluctuations and Non-equilibrium Statistical Mechanics
Max Planck Institute for the Physics of Complex Systems, Dresden (Germany), 2017
50. *Negative records of entropy production: the infimum law*
Dynamics, Thermodynamics and Information Processing in Chemical Networks
University of Luxembourg (Luxembourg), 2017
51. *Extreme values of mesoscopic currents in Physics and Biology**
DPG Meeting, TU Dresden, Dresden (Germany), 2017
52. *Brownian Carnot engine**
DPG Meeting, TU Dresden, Dresden (Germany), 2017
53. *Heat engines and Carnot efficiency at the nanoscale (Colloquium)*
Universitat Oldenburg, Oldenburg (Germany), 2017
54. *Martingale Theory for Nonequilibrium Thermodynamics (Colloquium)*
Institute for Theoretical Physics Cologne, Cologne (Germany), 2017
55. *Decision Making and Infima in Physics and Biology*
Laboratoire de Physico Chimie, Institut Curie, Paris (France), 2017
56. *Decision Making in the Arrow of Time**
DPG Meeting, Universitat Regensburg, Regensburg (Germany), 2016
57. *Thermodynamics of symmetry breaking**
Workshop on recent Developments In Non-Equilibrium Physics "Luxembourg out of Equilibrium"
University of Luxembourg (Luxembourg), 2015
58. *Thermodynamics of symmetry breaking**
XI GISC Workshop
Universidad Complutense de Madrid, Madrid (Spain), 2014
59. *Mechanisms of backtrack recovery in RNA polymerases I and II*
Universidad Politecnica de Madrid, Madrid (Spain), 2014
60. *Thermodynamics of symmetry breaking*
Universidad de Granada, Granada (Spain), 2014

61. *Thermodynamics of symmetry breaking*
Centre de Recerca Matemàtica, Bellaterra (Spain), 2014
62. *Detecting active processes from spontaneous oscillations of Ear Hair Bundles**
XI GISC Workshop
Universidad Carlos III de Madrid, Leganés (Spain), 2013
63. *Mimicking high-temperature reservoirs for colloidal particles using noisy electric fields**
FisEs 2012, IFISC, Palma de Mallorca (Spain), 2012
64. *Relative entropy as a quantitative measure of irreversibility in non-equilibrium stationary states**
II Workshop MODELICO
Centro de Astrobiología INTA-CSIC, Madrid (Spain), 2010
65. *Entropy production and time asymmetry in nonequilibrium stationary states*
International Symposium on Quantum Thermodynamics
Universitat Stuttgart, Stuttgart (Germany), 2010
66. *Construction of a microscopic Szilard engine*
Mechanics of Large Molecular Assemblies
IFISC, Mallorca (Spain), 2010
67. *Dissipation and information in stochastic processes*
VI GISC Workshop
Universidad Carlos III de Madrid, Leganés (Spain), 2010
68. *Estimating dissipation with single stationary trajectories*
kTlog2: Computing Matters
Toledo (Spain), 2009
(* = contributed talks)

(j) Teaching

- 2022-2023 Lectures "Biophysics" (38h)
ICTP postgraduate diploma program in Quantitative Life Sciences. Trieste, Italy
- 2022 Lectures "Irreversibility in biology and active heat engines" (10h)
School on *Stochastic Thermodynamics in Biology*, IITB Mumbai (India), 2022
- 2021-2022 Lectures "Biophysics" (38h)
ICTP postgraduate diploma program in Quantitative Life Sciences. Trieste, Italy
- 2020-2021 Lectures "Stochastic Thermodynamics" (10h)
ICTP Spring College Physics of Complex Systems, Trieste, Italy
- 2020-2021 Lectures "Biophysics" (52h)
ICTP postgraduate diploma program in Quantitative Life Sciences. Trieste, Italy
- 2020-2021 Lectures "Introduzione alla Biofisica" (52h)
Bachelor of Physics, Università degli studi di Trieste. Trieste, Italy
- 2019-2020 Lectures "Biophysics" (52h)
ICTP postgraduate diploma program in Quantitative Life Sciences. Trieste, Italy
- 2019-2020 Lectures "Introduzione alla Biofisica" (24h)
Bachelor of Physics, Università degli studi di Trieste. Trieste, Italy
- 2018-2019 Lectures "Probability Theory" (4h)
PCS Master Physics of Complex Systems
SISSA; joint course with Matteo Marsilli. Trieste, Italy
- 2017-2018 Lectures "Theoretical Biophysics" (4h)
TU Dresden; joint course with Frank Jülicher and Stephan W. Grill. Dresden, Germany
- 2016-2017 Lab Rotation for PhD students (one week), Dresden International PhD Program

Max Planck Institute for the Physics of Complex Systems. Dresden, Germany

- 2012-2013 Lectures "Physics applied to biology" (20h)
Faculty of Biology and Geology, UCM; joint course with Luis Dinis. Madrid, Spain
- 2011-2012 Lectures "Physics applied to biology" (20h)
Faculty of Biology and Geology, UCM; joint course with Luis Dinis. Madrid, Spain

(k) Supervision of Msc and PhD students, and Postdocs

1. Debraj Das (Postdoc, India, 2022-current)
2. Yonathan Sarmiento (PhD student, Venezuela, 2022-current)
3. Constantino di Bello (PhD student, Italy, 2023-current)
4. Valentina Bedoya (Diploma student, Colombia, 2023)
5. Adrielle Cusi (Diploma student, Phillipines, 2023)
6. Pierluigi Muzzeddu (PhD student, Italy, 2021-current)
7. Sarah Loos (Postdoc, Germany, 2021-2022)
8. Annwasha Dutta (Postdoc, India, 2020-2021)
9. Roman Belousov (Postdoc, Russia, 2018-2020)
10. Debarshi Banerjee (Msc student, India, 2022)
11. Kristian Angeli Pajanonot (Diploma student, Philippines, 2022)
12. Laila Saliekh (Diploma student, Palestine, 2022)
13. Maryalbis Patino (Diploma student, Venezuela, 2022)
14. Tarek Tohme (MSc student, Lebanon, 2022)
15. Gülce Kardes (MSc student, Turkey, 2022)
16. Gennaro Tucci (PhD student, Italy, 2019-2022)
17. Rita Majumdar (PhD STEP student, India, 2019-current)
18. Samvit Mahapatra (PhD student joint ICTP-RKMVERI, India, 2021-current)
19. Ashwin Gopal (Msc student, India, 2019-2020)
20. Fahad Kamulegeya (Diploma student, Uganda, 2019-2020)
21. Irem Topal (Visiting summer PhD student, Turkey, 2021)
22. Pedro Harunari (Visiting summer PhD student, Brazil, 2021)
23. Ekaterina Vedenchuk (Visiting summer Msc student, Russia, 2019)
24. Jane Garcia (Visiting summer Msc student, Phillipines, 2019)

(l) PhD Committees

1. Ivan Di Terlizzi, Universita di Padova (Italy), 2021
Vice-chair of PhD Thesis Committee
2. Stefano Garlaschi, Universita di Padova (Italy), 2021
Vice-chair of PhD Thesis Committee
3. Andrea Tononi, Universita di Padova (Italy), 2021
Vice-chair of PhD Thesis Committee
4. Aykut Argun, Universitat Gothemburg, Gothemburg (Sweden), 2021
Chair of PhD Thesis Committee
5. Nicolas Tizon Escamilla, Universidad de Granada, Granada (Spain), 2019
Vice-chair of PhD Thesis Committee
6. Priyo S. Pal, Homi Bhabha National Institute, Bhubaneswar (India), 2019
External referee
7. Ryan Cubero, SISSA, Trieste (Italy), 2018
Vice-chair of PhD Thesis Committee
8. Angel M Nunez, Universidad Politecnica de Madrid, Madrid (Spain), 2014

Vice-chair of PhD Thesis Committee

(m) Commissions of Trust

- Chair of the ICTP Faculty, 2022-current
- Member of the ICTP Academic Committee, 2023-current
- Member of the ICTP Faculty Board, since 2021
- Referee of international scientific journals: Science, Phys. Rev. Lett., Phys. Rev. X, Phys. Rev. E, Nature Phys., Nature Comms., New J. Phys., J. Stat. Mech., J. Stat. Phys., Physica A, J. Chem. Phys., EPL (Distinguished Referee 2017), Eur. Phys. J. B, etc.
- Reviewer of ERC Advanced Grant, since 2019
- Reviewer of FONCYT (Fondo para la Investigación Científica y Tecnológica, Argentina), since 2021
- Editor of Special Issue "Stochastic Thermodynamics: Experiment and Theory", J. Stat. Mech., 2019
- Scientific Supervisor of ICTP Associates: Shamik Gupta, Elena Rufeil, Ali Rajabpour, Velimir Ilic, Diego Bustos.