Curriculum vitae

PERSONAL INFORMATION

Alessandro Braggio

NEST, Istituto di Nanoscienze CNR-NANO, Piazza San Silvestro 12, 56127 , Pisa

+39 3772335996

alessandro.braggio@nano.cnr.it alessandro.braggio@gmail.com

https://sites.google.com/site/alessandrobraggio/Home

Skype alessandro.braggio Google alessandro.braggio

Gender Male | Date of birth 27/07/1974 | Nationality Italian

WORK EXPERIENCES

Qualification	Permanent researcher III level CNR
01/01/2017-now	Permanent Researcher at NEST, CNR-NANO Scuola Normale Superiore Piazza San Silvestro 12 Pisa
01/02/2014-31/12/2016	Membership to INFN, Sezione di Genova Dipartimento di Fisica Via Dodecaneso 33, 16146, Italy.
15/04/2010-02/2015	Member of scientific board CNR-SPIN CNR-SPIN C.so Perrone 24, Genova, Italy.
15/02/2009-30/12/2016	Permanent Researcher CNR-SPIN C.so Perrone 24, Genova, Italy.
15/12/2004	Researcher “Tenure Track” (5 years) Positively evaluated at 31/07/2008 Laboratorio Regionale LAMIA-INFM-CNR Dipartimento di Fisica, Genova, Italy.
08/2004-09/2004	Postdoctoral fellowship at Dipartimento di Fisica Università di Genova Research project MURST, PRIN2002
01/2004-07/2004	Postdoctoral fellowship at Theoretische Physik III Ruhr Universität Bochum, Germany for Deutsche Forshungsgemeinschaft DFG 703 42 166 (DFG Emmy-Noether).
06/2003-12/2003	Postdoctoral fellowship at Institut für Theoretische Festköperphysik Universität Karlsruhe, Germany. for EU-Projekt RTN1, Nanoscale Dynamics, HPRN-CT-2000-00144 (Projekt 9016).
12/2001-02/2002	Tutor Tutor art.33 at Dipartimento di Fisica, University of Genoa of 30/11/2001 for the General Physics II exam of the Diploma courses A.A. 2001/02.
06/2001-07/2001	Tutor Tutor art.33 at Dipartimento di Fisica, University of Genova of 05/06/2001 for the General Physics I exam of the Diploma courses A.A. 2000/01.

CURRICULUM STUDIORUM & TITLES (REVERSE CHRONOLOGICAL ORDER)

2017-2023	Abilitation to **Associated professorship (II Fascia)**, in **02B2**, "Fisica Teorica della Materia" **FIS02** **BANDO D.D. 1532/2016** from **10/04/2017** to **10/04/2023**
2017-2023	Abilitation to **Associated professorship (II Fascia)**, in **02A2**, "Fisica Teorica delle Interazioni Fondamentali" **FIS02** **BANDO D.D. 1532/2016** from **28/03/2017** to **28/03/2023**
2000–2003	**PhD in Physics** at Università di Genova.
05. 06. 2003	Thesis defense.
Title:	“Shot noise and spin effects in 1D quantum dots”
1994-1999	**Physics Degree** University of Genoa.
14. 07. 1999	Thesis defense (110/110 cum laude).
Title:	“Trasporto non lineare e Coulomb blockade in un filo quantico con due impurezze”

RESEARCH ACTIVITY

Research sector

Quantum transport in hybrid superconducting based nanostructures
Thermoelectrical quantum transport in hybrid nanodevices
Topological and Dirac materials
Full counting statistics, current Noise and correlations in coherent nanodevices
Coherent effects in strongly correlated systems
AdS/CFT correspondance in CMT
Topological field theories applied to CMT

SCIENTIFIC MANAGMENT

National

2008-2009	“Full Counting Statistics and Non-Markovian effects in nano-systems.” INFM-Seed Project - 25 Keuro
2013-2016	“Hybrid superconductor-semiconductor nanostructures: nanoelectronic applications, topological properties, correlation and disorder.” MIUR-FIRB2012 - 200 Keuro
2015	“Analisi e modellizzazione di nanodispositivi quantistici e sistemi complessi" Modulo CNR MD.P02.023.002

International

2014-2018	FP7-PEOPLE-2013-CIG “Coherent heat and energy transport in quantum systems” COHEAT, in quality of scientific mentor for Career Integration Grant of Dr. P. Solinas - 100 Keuro
2018-2019	Royal Society International Exchange between UK and Italy “Quantum sensing by proximised structures“ with the role of italian partner (Co-applicant) Grant Royal Society IES\R3\170054
2020-2021	Royal Society International Exchange between UK and Italy “The mechanics in quantum mechanics: nano-electromechanical Josephson junctions“ with the role of italian partner (Co-applicant) Grant Royal Society IEC\R2\192166

BIBLIOMETRY

ORCID	https://orcid.org/0000-0003-2119-1160
ResearcherID	http://www.researcherid.com/rid/B-3967-2009
ISI-Web h-index	21
ISI-Web Average citation	18,9
ISI-Web Total citation	1430
ISI-Web without self-citation:	1196
Citation counting from:	ISI-Web[Dec 2020]
Google Scholar	https://scholar.google.com/citations?user=9toslPMAAAAJ&hl=en
Google Scholar	Total Cit.: 1917, h-index: 24, i10: 44

PUBBLICATION LIST

Note Citations (**Cit.**) from ISI-Web , Citation (**GooSh.**) form Google Scholar and Impact Factor at publication year (**IF.**) Type of pubblication: Journal (**J**), Proceeding (**P**), Book chapter (**B**), Review (**R**).
Data updated to **January 2020**

[1] A. Braggio, M. Grifoni, M. Sassetti and F. Napoli,
"Plasmon and charge quantization effects in a double-barrier quantum wire",
Europhys. Lett. **50**, 236 (2000).
ISSN 0295-5075, 1286-4854, **Q1**
https://doi.org/10.1209/epl/i2000-00260-6
https://sites.google.com/site/alessandrobraggio/research/plasmonandchargequantizationeffectsinadouble-barrierquantumwire
Cit. 32,**J**, **IF. 2.228**
GooSh. 48

[2] A. Braggio, M. Sassetti and B. Kramer,
"Control of Spin in Quantum Dots with Non-Fermi-Liquid Correlations",
Phys. Rev. Lett. **87**, 146802 (2001).
ISSN 0031-9007, 1079-7114, **Q1**
https://doi.org/10.1103/PhysRevLett.87.146802
also in VJnano Vol. 4, Issue 14, 1st October, 2001
https://arxiv.org/abs/cond-mat/0107505
Cit. 32, **J**, **IF. 6.668**
GooSh. 42

[3] M. Vicari, A. Braggio, E. Galleani d'Agliano and M. Sassetti,
"Photoconductance of a one-dimensional quantum dot",
Eur. Phys. J. B **25**, 115 (2002).
ISSN 1434-6028, 1434-6036, **Q2**
https://doi.org/10.1140/e10051-002-0012-z
https://arxiv.org/abs/cond-mat/0112087
Cit. 4, **J**, **IF. 1.741**
GooSh. 5

[4] M. Sassetti, A. Braggio and F. Cavaliere,
"Spin transport properties of a quantum dot",
Lecture Notes in Physics "Anderson Localization and Its Ramifications: Disorder, Phase Coherence and Electron Correlations"
ed by T. Brandes, S. Kettemann, Springer-Verlag Heidelberg (2003).
ISBN: 3-540-40785-5
B

[5] M. Sassetti, A. Braggio, F. Cavaliere, T. Kleimann and B. Kramer,
"Electron Transport in Quantum Wires",
in "Quantum Phenomena in Mesoscopic Systems", Course CLI (2002) of the International School of Physics "Enrico Fermi"
ed by B. Altshuler, A. Tagliacozzo, V. Tognetti, IOS Press, Amsterdam (2003).
ISBN: 1-58603-384-0
B

[6] A. Braggio, F. Cavaliere, M. Sassetti and B. Kramer,
"Spin transport in quantum dots: effects of non-Fermi liquid correlations",
Prooceedings of the "26th International Conference on the Physics of Semiconductors Edinburgh 2002",
ed by J. Davies and A. Long, Institute of Physics Publishing, University of Glasgow (2003).
ISBN: 0-75030-924-5
P

[7] A. Braggio, R. Fazio and M. Sassetti,
"Shot noise of a quantum dot with non-Fermi-liquid correlations",
Phys. Rev B **67**, 233308 (2003).
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.67.233308
also in VJnano Vol. 8, Issue 1, 7th July 2003.
https://arxiv.org/abs/cond-mat/0304329
Cit. 16,**J**, **IF. 2.962**
GooSh. 22

[8] F. Cavaliere, A. Braggio, J. T. Stockburger, M. Sassetti and B. Kramer,
"Negative differential conductance induced by spin-charge separation",
Phys. Rev. Lett. **93**, 036803 (2004).
ISSN 0031-9007, 1079-7114, **Q1**
https://doi.org/10.1103/PhysRevLett.93.036803
also in VJnano Vol.10, Issue 4, 26th June 2004.
https://arxiv.org/abs/cond-mat/0309619
Cit. 36,**J**,**IF. 7.218**
GooSh. 44

[9] F. Cavaliere, A. Braggio, M. Sassetti and B. Kramer,
"Spin effects in transport through non-Fermi liquid quantum dots",
Phys. Rev. B **70**, 125323 (2004).
ISSN 2469-9950, 2469-9969 **Q1**
https://doi.org/10.1103/PhysRevB.70.125323
also in VJnano Vol.10, Issue 15, 11th October 2004.
https://arxiv.org/abs/cond-mat/0407170
Cit. 17,**J**, **IF. 3.075**
GooSh. 22

[10] M. Sassetti, F. Cavaliere, A. Braggio and B. Kramer,
"Correlations and spin in electric transport through quantum dots",
in "Fundamental problems of mesoscopic physics: interactions and decoherence",
ed. by I. Lerner et. al, Kluwer, Dordrecht (2004).
ISBN: 1-4020-2192-5
B

[11] A. Braggio, J. Koenig and R. Fazio,
"Full Counting Statistics in Strongly Interacting Systems: Non-Markovian Effects",
Phys. Rev. Lett. **96**, 026805 (2006).
ISSN 0031-9007, 1079-7114, **Q1**
https://doi.org/10.1103/PhysRevLett.96.026805
also in VJnano Vol.13, Issue 4, 30th January 2006.
https://arxiv.org/abs/cond-mat/0507527
Cit 123, **J**,**IF. 7.072**
GooSh. 171

[12] A. Braggio, M. Merlo, N. Magnoli and M. Sassetti,
"Signatures of fractional Hall quasi-particles in moments of current through an antidot",
Phys. Rev. B **74**, 041304 (2006)
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.74.041304
also in VJnano Vol.14, Issue 5, 31st July 2006.
https://arxiv.org/abs/cond-mat/0601570
Cit. 16, **J**, **IF. 3.107**
GooSh. 16

[13] C. Flindt, A. Braggio and T. Novotný,
"Non-Markovian dynamics in the theory of full counting statistics",
in proceedings "Noise and Fluctuations: 19th International Conference on Noise and Fluctuations; ICNF 2007" AIP Conf. Proc. **922**, 531 (2007).
https://doi.org/10.1063/1.2759735
https://arxiv.org/abs/cond-mat/0706.2925
P

[14] M. Merlo, A. Braggio, N. Magnoli and M. Sassetti,
"Transport of fractional Hall quasiparticles through an antidot",
Phys. Rev. B **75**, 195332 (2007).
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.75.195332
also in VJnano Vol.15, Issue 22, 4th June 2007.
https://arxiv.org/abs/cond-mat/0701438
Cit. 7, **J**, **IF. 3.172**
GooSh. 8

[15] A. Braggio, M. Merlo, N. Magnoli and M. Sassetti,
"Current statistics of FQHE quasiparticles in antidots",
in "Nanophysics, from fundamentals to applications" Proceedings of the 6th Rencontres du Vietnam 6-12 August 2006, Hanoi,
ed. Nguyen Van Hieu, J. Tran Than Van, B. Placais and T. Martin, (2007).
P

[16] M. Merlo, A. Braggio, N. Magnoli and M. Sassetti,
"Current Statistics of an antidot in the Fractional Quantum Hall regime",
proceedings of EP2DS-17, Genova, Italy, July 2007
Physica E **40**, 1282 (2008).
https://doi.org/10.1016/j.physe.2007.08.127
P,

[17] A. Braggio, C. Flindt and T. Novotný,
"Non-Markovian signatures in the current noise of a charge qubit",
proceedings of EP2DS-17, Genova, Italy, July 2007
Physica E **40**, 1745 (2008).
https://doi.org/10.1016/j.physe.2007.10.082
https://arxiv.org/abs/0801.3723
P,

[18] C. Flindt, T. Novotný, A. Braggio , M. Sassetti and A.-P. Jauho,
"Counting Statistics of Non-Markovian Quantum Stochastic Processes",
Phys. Rev. Lett. **100**, 150601 (2008)
ISSN 0031-9007, 1079-7114, **Q1**
https://doi.org/10.1103/PhysRevLett.100.150601
anche in VJnano Vol.17, Issue 17, 28th April 2008.
https://arxiv.org/abs/0801.0661
Cit. 159, **J**,**IF. 7.180**
GooSh. 227

[19] D. Ferraro, A. Braggio, M. Merlo, N. Magnoli and M. Sassetti,
"Relevance of multiple-quasiparticle tunneling between edge states at $\nu = p/(2np+1)$*"*
Phys. Rev. Lett. **101**, 166805 (2008)
ISSN 0031-9007, 1079-7114, **Q1**
https://doi.org/10.1103/PhysRevLett.101.166805
https://arxiv.org/abs/0805.3435
Cit. 26, **J**, **IF. 7.180**
GooSh. 33

[20] A. Braggio, C. Flindt and T. Novotný,
"The influence of charge detection on counting statistics"
J. Stat. Mech. -Theory Exp. P01048 (2009)
ISSN 1742-5468, **Q3**
https://doi.org/10.1088/1742-5468/2009/01/P01048
https://arxiv.org/abs/0809.1837
Cit. 19, **J**, **IF. 2. 670**
GooSh. 17

[21] A. Braggio, C. Flindt and T. Novotný,
"Current fluctuations in a dissipative environment"
AIP. Conf Proc. **1129**, 427 (2009)
https://doi.org/10.1063/1.3140491
P

[22] D. Ferraro, A. Braggio, N. Magnoli and M. Sassetti,
"Multiple-quasiparticle agglomerates at $\nu = 2/5$"
Physica E **42**, 580 (2010)
https://doi.org/10.1016/j.physe.2009.06.037
https://arxiv.org/abs/0905.0335
P

[23] D. Ferraro, A. Braggio, N. Magnoli and M. Sassetti
"Neutral modes edge state dynamics through quantum point contacts"
New J. Phys. **12**, 013012 (2010)
ISSN 1367-2630, **Q1**
https://doi.org/10.1088/1367-2630/12/1/013012
https://arxiv.org/abs/0910.5693
Cit. 20, **J**, **IF. 3.849**
GooSh. 25

[24] D. Ferraro, A. Braggio, N. Magnoli and M. Sassetti
"Charge tunneling in fractional edge channels"
Phys. Rev. B **82**, 085323 (2010)
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.82.085323
https://arxiv.org/abs/1006.3157
Cit. 34, **J**, **IF. 3.774**
GooSh. 44

[25] C. Flindt, T. Novotný, A. Braggio and A.-P. Jauho,
"Counting statistics of transport through Coulomb blockade nanostructures: high-order cumulants and non-Markovian effects",
Phys. Rev. B **82** 155407 (2010)
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.82.155407
https://arxiv.org/abs/1002.4506
Cit. 97, **J**, **IF. 3.774**
GooSh. 139

[26] A. Braggio, M. Governale, M. G. Pala and J. König,
"Superconducting proximity effect in interacting quantum dots revealed by shot noise"
Solid State Comm. **151**, 155 (2011)
ISSN 0038-1098, **Q2**
https://doi.org/10.1016/j.ssc.2010.10.043
https://arxiv.org/abs/1002.4629
Cit. 39, **J**, **IF. 1.649**
GooSh. 54

[27] M. Carrega, D. Ferraro, A. Braggio, N. Magnoli and M. Sassetti
"Anomalous charge tunneling in the fractional quantum Hall edge states at filling factor $\nu = 5/2$"
Phys. Rev. Lett. **107**, 146404 (2011)
ISSN 0031-9007, 1079-7114, **Q1**
https://doi.org/10.1103/PhysRevLett.107.146404
https://arxiv.org/abs/1102.5666
Cit. 38, **J**, **IF. 7.370**
GooSh. 43

[28] A. Blasi, A. Braggio, M. Carrega, D. Ferraro, N. Maggiore and N. Magnoli
"Non-Abelian BF theory for 2+1 dimensional topological states of matter"
New J. Phys. **14**, 013060 (2012)
ISSN 1367-2630, **Q1**
https://doi.org/10.1088/1367-2630/14/1/013060
https://arxiv.org/abs/1106.4641
Cit. 19, **J**, **IF. 4.063**
GooSh. 29

[29] M. Carrega, D. Ferraro, A. Braggio, N. Magnoli and M. Sassetti
"Spectral noise for edge states at filling factor $\nu = 5/2$"
New J. Phys. **14**, 023017 (2012)
ISSN 1367-2630, **Q1**
https://doi.org/10.1088/1367-2630/14/2/023017
https://arxiv.org/abs/1201.5782
Cit. 25, **J**, **IF. 4.063**
GooSh. 27

[30] A. Braggio, D. Ferraro, M. Carrega, N. Magnoli and M. Sassetti
"Environmental induced renormalization effects in quantum Hall edge states due to $1/f$ noise and dissipation"
New J. Phys. **14**, 093032 (2012).
ISSN 1367-2630, **Q1**
https://doi.org/10.1088/1367-2630/14/9/093032
https://arxiv.org/abs/1203.1906
Cit. 24, **J**, **IF. 4.063**
GooSh. 27

[31] A. Braggio, D. Ferraro and N. Magnoli
"Quasiparticle agglomerates in Read-Rezayi and anti Read-Rezayi state"
Phys. Scr. **2012**, 014052 (2012).
https://doi.org/doi:10.1088/0031-8949/2012/T151/014052
https://arxiv.org/abs/1207.4604
P

[32] D. Ferraro, A. Braggio, N. Magnoli and M. Sassetti
"Finite frequency noise for edge states at filling factor $\nu = 2/5$"
Phys. Scr. **2012**, 014025 (2012).
https://doi.org/10.1088/0031-8949/2012/T151/014025
https://arxiv.org/abs/1207.6240
P

[33] A. Braggio, M. Carrega, D. Ferraro, N. Magnoli and M. Sassetti
"Quasiparticle agglomerates and environmental effects in the fractional quantum Hall edge states at $\nu = 5/2$"
AIP Conf. Proc. **1566**, 273 (2013).
https://doi.org/10.1063/1.4848391
P

[34] A. Amoretti, A. Braggio, G. Caruso, N. Maggiore and N. Magnoli
"3+1D Massless Weyl spinors from bosonic scalar-tensor duality"
Adv. in High Energy Physics **2014** 635286 (2014).
ISSN 1687-7365, 1687-7357,**Q2**
https://doi.org/10.1155/2014/635286
https://arxiv.org/abs/1308.6674
Cit. 9, **J**, **IF. 2.203**
GooSh. 8

[35] M. Carrega, D. Ferraro, A. Braggio, M. Sassetti
"Finite frequency noise for Laughlin state investigated by a resonant circuit"
J. Phys. Conf. Ser. **568** 052005 (2014).
https://doi.org/10.1088/1742-6596/568/5/052005
https://arxiv.org/abs/1412.4996
P

[36] A. Amoretti, A. Braggio, N. Maggiore, N. Magnoli and D. Musso
"Coexistence of two vector order parameters: a holographic model for ferromagnetic superconductivity"
J. High Energy Phys. 01 (2014) 054
ISSN 1029-8479, **Q2**
https://doi.org/10.1007/JHEP01(2014)054
https://arxiv.org/abs/1309.5093
Cit. 32, **J**, **IF. 6.111**
GooSh. 41

[37] D. Ferraro, M. Carrega, A. Braggio and M. Sassetti
"Multiple quasiparticle Hall spectroscopy investigated with a resonant detector"
New J. Phys. **16**, 043018 (2014)
ISSN 1367-2630, **Q1**
https://doi.org/10.1088/1367-2630/16/4/043018
https://arxiv.org/abs/1402.6488
Cit. 22, **J**, **IF. 3.558**
GooSh. 25

[38] A. Amoretti, A. Braggio, G. Caruso, N. Maggiore and N. Magnoli
"Holography in flat spacetime: 4D theories and electromagnetic duality on the border"
J. High Energy Phys. P04, 142 (2014)
ISSN 1029-8479, **Q2**
https://doi.org/10.1007/JHEP04(2014)142
https://arxiv.org/abs/1401.7101
Cit. 12, **J**, **IF. 6.111**
GooSh. 14

[39] A. Amoretti, A. Braggio, N. Maggiore, N. Magnoli, D. Musso
"Thermo-electric transport in gauge/gravity models with momentum dissipation"
J. High Energy Phys. P09 160 (2014)
ISSN 1029-8479, **Q2**
https://doi.org/10.1007/JHEP09(2014)160
https://arxiv.org/abs/1406.4134
Cit. 84, **J**, **IF. 6.111**
GooSh. 104

[40] G. Dolcetto, L. Vannucci, A. Braggio, R. Raimondi, M. Sassetti
"Current enhancement through a time dependent constriction in fractional topological insulators"
Phys. Rev. B **90**, 165401 (2014)
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.90.165401
https://arxiv.org/abs/1409.3715
Cit. 7, **J**,**IF. 3.736**
GooSh. 7

[41] F. Caglieris, A. Braggio, I. Pallecchi, A. Provino, M. Pani, G. Lamura, A. Jost, U. Zeitler, E. Galleani D Agliano, P. Manfrinetti, M. Putti
"Magneto-Seebeck effect in REFeAsO (RE=rare earth) compounds: probing the magnon drag scenario"
Phys. Rev. B **90**, 134421 (2014)
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.90.134421
https://arxiv.org/abs/1407.7358
Cit. 8, **J**,**IF. 3.736**
GooSh. 9

[42] S. Gasparinetti, P. Solinas, A. Braggio, M. Sassetti
"Heat-exchange statistics in driven open quantum systems"
New J. Phys. **16**, 115001 (2014)
ISSN 1367-2630, **Q1**
Focus issues: Quantum Thermodynamics
https://doi.org/10.1088/1367-2630/16/11/115001
https://arxiv.org/abs/1404.3507
Cit. 41, **J**, **IF. 3.558**
GooSh. 55

[43] A. Amoretti, A. Braggio, G. Caruso, N. Maggiore, N. Magnoli
"Introduction of a boundary in topological field theories"
Phys. Rev. D **90**, 125006 (2014)
ISSN 2470-0010, 2470-0029, **Q1**
https://doi.org/10.1103/PhysRevD.90.125006
https://arxiv.org/abs/1410.2728
Cit. 7, **J**, **IF. 4.643**
GooSh. 7

[44] A. Amoretti, A. Braggio, N. Maggiore, N. Magnoli, D. Musso
"Analytic dc thermoelectric conductivities in holography with massive gravitons"
Phys. Rev. D **91**, 025002 (2015)
ISSN 2470-0010, 2470-0029, **Q1**
https://doi.org/10.1103/PhysRevD.91.025002
https://arxiv.org/abs/1407.0306
Cit. 67, **J**, **IF. 4.506**
GooSh. 84

[45] M. Carrega, P. Solinas, A. Braggio, M. Sassetti, U. Weiss
"Functional Integral approach to time-dependent heat exchange in open quantum systems: general method and applications "
New J. Phys. **17**, 045030 (2015)
ISSN 1367-2630, **Q1**
Focus issues: Quantum Thermodynamics
https://doi.org/10.1088/1367-2630/17/4/045030
https://arxiv.org/abs/1412.6991
Cit. 46, **J**, **IF. 3.570**
GooSh. 63

[46] A. Amoretti, A. Braggio, N. Magnoli, D. Musso
"Bounds on charge and heat diffusivities in momentum dissipating holography"
J. High Energy Phys. P07 102 (2015)
ISSN 1029-8479, **Q2**
https://doi.org/10.1007/JHEP07(2015)102
https://arxiv.org/abs/1411.6631
Cit. 30, **J**, **IF. 6.023**
GooSh. 28

[47] F. Giazotto, P. Solinas, A. Braggio, S. Bergeret
"Ferromagnetic insulator-based superconducting junctions as sensitive electron thermometers"
Phys. Rev. Applied **4**, 044016 (2015)
ISSN 2331-7019, 2331-7043, **Q1**
https://doi.org/10.1103/PhysRevApplied.4.044016
https://arxiv.org/abs/1502.07548
Cit. 34, **J**, **IF. 4.061**
GooSh. 54

[48] R. Bosisio, P. Solinas, A. Braggio, F. Giazotto
"Photonic heat conduction in Josephson-coupled Bardeen-Cooper-Schrieffer superconductors"
Phys. Rev. B **93**, 144512 (2016)
ISSN 2469-9950, 2469-9969, , **Q1**
https://doi.org/10.1103/PhysRevB.93.144512
https://arxiv.org/abs/1512.05600
Cit. 16, **J**, **IF. 3.836**
GooSh. 14

[49] A. Braggio, M. Carrega, D. Ferraro, M. Sassetti
"Finite frequency noise spectroscopy for fractional Hall states at $\nu = 5/2$"
J. Stat. Mech. -Theory Exp. **5**, 054010 (2016)
ISSN 1742-5468, , **Q3**
https://doi.org/10.1088/1742-5468/2016/05/054010
https://arxiv.org/abs/1511.05268
Cit.5, **J**, **IF. 2.196**
GooSh. 4

[50] M. Carrega, P. Solinas, A. Braggio, M. Sassetti
"Computation of transient dynamics of energy power for a dissipative two state system"
J. Stat. Mech. -Theory Exp. **5**, 054014 (2016)
ISSN 1742-5468, , **Q3**
https://doi.org/10.1088/1742-5468/2016/05/054014
https://arxiv.org/abs/1511.06095
Cit. 3, **J**, **IF. 2.196**
GooSh. 3

[51] P. Marra, R. Citro, A. Braggio
"Signatures of topological phase transitions in Josephson current-phase discontinuities"
Phys. Rev. B **93**, 220507(R) (2016)
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.93.220507
https://arxiv.org/abs/1508.01799
Cit. 25, **J**,**IF. 3.836**
GooSh. 35

[52] R. Hussein, L. Jaurigue, M. Governale, A. Braggio
"Double quantum dot Cooper-pair splitter at finite couplings"
Phys. Rev. B **94**, 235134 (2016)
ISSN 2469-9950, 2469-9969 **Q1**
https://doi.org/10.1103/PhysRevB.94.235134
https://arxiv.org/abs/1608.00504
Cit. 14, **J**,**IF. 3.836**
GooSh. 17

[53] A. Amoretti, A. Braggio, N. Maggiore, N. Magnoli
"Thermo-electric transport in gauge/gravity models"
Adv. Phys. X **2**, 409 (2017)
ISSN 2374-6149, **Q1**
https://doi.org/10.1080/23746149.2017.1300509
Cit. 13, **R**, **IF. 1.03**
GooSh. 13

[54] R. Hussein, A. Braggio, M. Governale
"Entanglement-symmetry control in a quantum-dot Cooper-pair splitter"
Phys. Status Solidi B **254** 1600603 (2017)
ISSN 1521-3951, 0370-1972, **Q2**
https://doi.org/10.1002/pssb.201600603
https://arxiv.org/abs/1609.01902
Cit. 6, **J**, **IF. 1.729**
GooSh. 8

[55] C. Guarcello, P. Solinas, A. Braggio, M. Di Ventra, F. Giazotto
"Josephson thermal memory"
Phys. Rev. Applied **9**, 14021 (2018)
ISSN 2331-7019, 2331-7043, **Q1**
https://doi.org/10.1103/PhysRevApplied.9.014021
https://arxiv.org/abs/1706.05323
Cit. 18,**J**, **IF. 4.782**
GooSh. 27

[56] C. Guarcello, P. Solinas, A. Braggio, F. Giazotto
"Solitonic Josephson thermal transport"
Phys. Rev. Applied **9**, 34014 (2018)
ISSN 2331-7019, 2331-7043, **Q1**
https://doi.org/10.1103/PhysRevApplied.9.034014
https://arxiv.org/abs/1712.00259
Cit. 10, **J**, **IF. 4.782**
GooSh. 11

[57] P. Marra, A. Braggio, R. Citro
"A zero-dimensional topologically nontrivial state in a superconducting quantum dot"
Beilstein J. Nanotechnol. **9**, 1705, (2018)
ISSN 2190-4286, **Q1**
https://doi.org/10.3762/bjnano.9.162
https://arxiv.org/abs/1804.06415
Cit. 1 J, **IF. 2.968**

[58] P. Virtanen, F. S. Bergeret, E. Strambini, F. Giazotto, A. Braggio
"Majorana bound states hybrid 2D Josephson junctions"
Phys. Rev. B **98**, 020501(R) (2018)
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.98.020501
https://arxiv.org/abs/1712.01684
Cit. 12,J, **IF. 3.813**
GooSh. 20

[59] C. Guarcello, P. Solinas, A. Braggio, F. Giazotto
"Phase-coherent solitonic Josephson heat oscillator"
Sci. Rep. **8**, 12287 (2018)
ISSN 2045-2322, **Q1**
https://doi.org/10.1038/s41598-018-30268-1
https://arxiv.org/abs/1803.02588
Cit. 9, **J**, **IF 4.122**
GooSh. 14

[60] C. Guarcello, P. Solinas, A. Braggio, F. Giazotto
"Solitonic thermal transport in a current biased long Josephson junction"
Phys. Rev. B **98**, 104501 (2018)
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.98.104501
https://arxiv.org/abs/1805.05685
Cit. 7, **J**, **IF 3.813**
GooSh. 7

[61] C. Guarcello, A. Braggio, P. Solinas, F. Giazotto
"Non-linear critical current thermal response of an asymmetric Josephson tunnel junction"
Phys. Rev. Applied **11** 024002 (2019)
ISSN 2331-7019, 2331-7043, **Q1**
https://doi.org/10.1103/PhysRevApplied.11.024002
https://arxiv.org/abs/1807.03186
Cit. 7, **J**, **IF 4.194**
GooSh. 12

[62] R. Hussein, M. Governale, S. Kohler, W. Belzig, F. Giazotto, A. Braggio
"Nonlocal thermoelectricity in a Cooper-pair splitter"
Phys. Rev. B **99** 075429 (2019)
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.99.075429
https://arxiv.org/abs/1806.04569
Cit. 11 J, **IF 3.575**
GooSh. 20

[63] F. Paolucci, G. De Simoni, P. Solinas, E. Strambini, N. Ligato, P. Virtanen, A. Braggio, F. Giazotto
"Magnetotransport Experiments on Fully Metallic Superconducting Dayem Bridge Field-Effect Transistors "
Phys. Rev. Applied **11** 024061 (2019)
ISSN 2331-7019, 2331-7043, **Q1**
https://doi.org/10.1103/PhysRevApplied.11.024061
https://arxiv.org/abs/1808.00353
Cit. 11, **J**, **IF 4.194**
GooSh. 20

[64] G. Blasi, F. Taddei, V. Giovannetti, A. Braggio
"Manipulation of Cooper pair entanglement in hybrid topological Josephson junctions"
Phys. Rev. B **99** 064514 (2019)
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.99.064514
https://arxiv.org/abs/1808.09709
Cit. 6 J, **IF 3.575**
GooSh. 9

[65] F. Vischi, M. Carrega, P. Virtanen, E. Strambini, A. Braggio, F. Giazotto
"Thermodynamic cycles in Josephson junctions"
Sci. Rep. **9**, 3238 (2019), **Q1**
ISSN 2045-2322
https://doi.org/10.1038/s41598-019-40202-8
https://arxiv.org/abs/1806.01568
Cit. 12 J, **IF 3.998**
GooSh. 15

[66] L. Bours, B. Sothmann, M. Carrega, E. Strambini, A. Braggio, E. M. Hankiewicz, L. W. Molenkamp and F. Giazotto
"Phase-tunable thermal rectification in the topological SQUIPT"
Phys. Rev. Applied **11** 044073 (2019)
ISSN 2331-7019, 2331-7043, **Q1**
https://doi.org/10.1103/PhysRevApplied.11.044073
https://arxiv.org/abs/1811.02969
Cit. 6 J IF 4.532
GooSh. 21

[67] C. Guarcello, A. Braggio, P. Solinas, G. P. Pepe, F. Giazotto
"Josephson-Threshold calorimeter"
Phys. Rev. Applied **11**, 054074 (2019)
ISSN 2331-7019, 2331-7043, **Q1**
https://doi.org/10.1103/PhysRevApplied.11.054074
https://arxiv.org/abs/1901.01456
Cit. 6 J, **IF 4.194**
GooSh. 15

[68] C. Guarcello, P. Solinas, F. Giazotto, A. Braggio
"Thermal flux-flow regime in long Josephson tunnel junctions"
J. Stat. Mech.-Theory Exp. 084006 (2019)
ISSN 1742-5468, **Q3**
https://doi.org/10.1088/1742-5468/ab3194
https://arxiv.org/abs/1904.13172
P

[69] F. Vischi, M. Carrega, A. Braggio, P. Virtanen, F. Giazotto
"Thermodynamics of a phase-driven proximity Josephson junction"
Entropy **21**, 1005 (2019)
ISSN 1099-4300, **Q2**
https://doi.org/10.3390/e21101005
https://arxiv.org/abs/1909.09554
Cit. 2 J, **IF 2.494**
GooSh. 3

[70] G. Blasi, F. Taddei, V. Giovannetti, A. Braggio
"'Manipulation of Cooper pair entanglement in hybrid topological Josephson junctions'
Proceedings **2019**, 12(1)
https://doi.org/10.3390/proceedings2019012044
https://www.mdpi.com/2504-3900/12/1/44
P

[71] P. Virtanen, A. Braggio, F. Giazotto
"Superconducting size effect in thin films under electric field: mean-field self-consistent model"
Phys. Rev. B **100** 224506 (2019)
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.100.224506
https://arxiv.org/abs/1903.01155
Cit. 6, **J**, **IF 3.575**
GooSh. 13

[72] G. Marchegiani, A. Braggio, F. Giazotto
"Nonlinear thermoelectricity with with Electron-Hole Symmetric Systems"
Phys. Rev. Lett. **124**, 106801 (2020)
ISSN 0031-9007, 1079-7114, **Q1**
https://doi.org/10.1103/PhysRevLett.124.106801
https://arxiv.org/abs/1909.04590
Cit. 7, **J**, **GooSh. 10 IF 8.385 (2019)**

[71] F. Vischi, M. Carrega, A. Braggio, F. Paolucci, F. Bianco, S. Roddaro, F. Giazotto
"Electron cooling with graphene-insulator-superconductor tunnel junctions and applications to fast bolometry"
Phys. Rev. Applied **13**, 054006 (2020)
ISSN 2331-7019, 2331-7043, **Q1**
https://doi.org/10.1103/PhysRevApplied.13.054006
https://arxiv.org/abs/1906.10988
Cit. 1 J, **GooSh. 5**
IF 4.194 (2019)

[74] G.Blasi, F. Taddei, L. Arrachea, M. Carrega, A. Braggio
"Nonlocal Thermoelectricity in a S-TI-S Junction in Contact with a N-Metal Probe: Evidence for Helical Edge States "
Phys. Rev. Lett. **124**, 227701 (2020)
ISSN 0031-9007, 1079-7114, **Q1**
https://doi.org/10.1103/PhysRevLett.124.227701
https://arxiv.org/abs/1911.04367
Cit. 4JGooSh. 8 , **IF 8.385 (2019)**

[75] G. Marchegiani, A. Braggio, F. Giazotto
"A superconducting nonlinear thermoelectric heat engine"
Phys. Rev. B **101**, 214509 (2020)
ISSN 2469-9950, 2469-9969, **Q1**
https://doi.org/10.1103/PhysRevB.101.214509
https://arxiv.org/abs/2002.05492
Cit. 2 J, **GooSh. 4 IF 3.575 (2019)**

[76] E. Strambini, A. Iorio, O. Durante, R. Citro, C. Sanz-Fernández, C. Guarcello, I. V. Tokatly, A. Braggio, M. Rocci, N. Ligato, V. Zannier, L. Sorba, F. S. Bergeret, F. Giazotto
"A Josephson quantum phase battery"
Nat. Nanotechnol. **15**, 656 (2020)
ISSN 1748-3387, **Q1**
https://doi.org/10.1038/s41565-020-0712-7
https://arxiv.org/abs/2001.03393
Cit. 1 J, **GooSh. 4 IF 31.538 (2019)**

[77] B. Scharf, A. Braggio, E. Strambini, F. Giazotto, E. M. Hankiewicz
"Topological Josephson Heat Engine"
Commun. Phys. **3**, 198 (2020)
https://doi.org/10.1038/s42005-020-00463-6
https://arxiv.org/abs/2002.05492
Cit. 1 J, **IF not yet defined**

[78] C. Guarcello, R. Citro, O. Durante, F. S. Bergeret, A. Iorio, C. Sanz-Fernández, E. Strambini, F. Giazotto, A. Braggio
"rf-SQUID measurements of anomalous Josephson effect "
Phys. Rev. Research **2**, 023165 (2020)
ISSN 2643-1564,-
https://doi.org/10.1103/PhysRevResearch.2.023165
https://arxiv.org/abs/2001.07621
J, **IF not yet defined**

[79] G. Marchegiani, A. Braggio, F. Giazotto
"Phase-tunable thermoelectricity in a Josephson junction"
Phys. Rev. Research **2**, 043091 (2020)
ISSN 2643-1564,-
https://doi.org/10.1103/PhysRevResearch.2.043091
https://arxiv.org/abs/2006.10631
J, **IF not yet defined**

[80] G.Blasi, F. Taddei, L. Arrachea, M. Carrega, A. Braggio
"Nonlocal thermoelectricity in a topological Andreev interferometer"
Phys. Rev. B **102**, 241302(R) (2020)
https://link.aps.org/doi/10.1103/PhysRevB.102.241302
https://arxiv.org/abs/2007.16183
J, **GooSh. 2 IF 3.575 (2019)**

[81] G. Marchegiani, A. Braggio, F. Giazotto
"Noise effects in the nonlinear thermoelectricity of a Josephson junction"
Appl. Phys. Lett. **117**, 212601 (2020)
https://doi.org/10.1063/5.0029984
https://arxiv.org/abs/2009.05565

[82] G. Marchegiani, A. Braggio, F. Giazotto
"Highly efficient phase-tunable photonic thermal diode"
in press in Appl. Phys. Lett.
https://arxiv.org/abs/2011.02777

[83] D. Gresta, G.Blasi, F. Taddei, M. Carrega, A. Braggio, L. Arrachea
"Signatures of Jackiw-Rebbi resonance in the thermal conductance of topological Josephson junctions with magnetic islands"
submitted to Phys. Rev. B
http://arxiv.org/abs/2012.12630

INVITED ORAL CONTRIBUTION

2002 *"Luttinger Liquid: from Theory to Real world"*,
F11-2002 "Statistical Mechanics and Field Theoy",
Università di Firenze, Firenze (I), December 16th-17th 2002.

2003 *"Shot noise and spin effects in 1D quantum dots"*,
Institut für Theoretische Festkörperphysik,
Universität Karlsruhe, Karlsruhe (D), March 31st 2003.

2004 *"The Full Counting Statistics in Single Electron Transistors"*,
Molecular Computing Group, Institüt für Theoretische Physik,
Univesität Regensburg, Regensburg (D), March 10th 2004.

2006 *"Signatures of Fractional Hall quasi-particles in moments of current through an antidot"*,
Theoretische Physik III,
Ruhr Universität Bochum, Bochum (D), May 17th 2006.

"Non-Markovian corrections in Full Counting Statistics",
MIC-Department of Micro and Nanotechnology,
Technical University of Denmark, Kongens Lyngby, Copenhagen (DK), July 13th 2006.

"Signatures of Fractional Hall quasi-particles in moments of current through an antidot",
6th Rencontres du Vietnam "Nanophysics: from fundamentals to applications",
Hanoi (VT), August 6th-12th 2006.

2007 *"Full Counting Statistics in Markovian and Non-Markovian Systems"*,
Korea Advance Institute for Science and Technology(KAIST),
Daejeon, South Korea (KR), February 21st 2007.

"Full Counting Statistics in interacting Systems: an application to the FQHE quasiparticles transport",
Department of Condensed Matter Physics, Faculty of Mathematics and Physics, Charles University,
Prague, Czech Republic (CZ), April 20th 2007.

"Full Counting Statistics in Coherent Non-Markovian Systems",
WE-Heraeus Summer School "Quantum Noise and Quantum Optics in the Solid State"
Physikzentrum Bad Honnef, Bad Honnef (D), August 15th 2007
Tutorial lecture.

"Full Counting Statistics in Coherent Non-Markovian Systems",
Dipartimento di Fisica, Università Roma Tre,
Roma (IT), September 18th 2007

"Current Cumulants in Coherent Non-Markovian Systems",
Theoretische Physik III, Ruhr Universität Bochum
Bochum (D), November 16th 2007.

"Current Fluctuations in Coherent Non-Markovian Systems",
Quantum Transport Group, Universität Konstanz,
Konstanz (D), November 20th 2007.

2008 *"Non Markovian Counting Processes"*,
SM&FT 2008" The XIV Workshop on Statistical Mechanics and non perturbative field theory",
Bari (IT), September 3rd 2008.

2009 *"Coherence and fluctuations in non-Markovian baths"*,
Quantentransport in Nanostrukturen, Universität Duisburg-Essen ',
Duisburg (D), May 11th 2009.

"Coherence and fluctuations in non-Markovian baths",
Research group Dynamics of nanoscale devices,
Aachen (D), May 14th 2009.

"Coherence and fluctuations in non-Markovian baths",
WE-Heraeus Seminar "Noise and Full Counting Statistics in Mesoscopic Transport",
Bad Honnef (D), May 18th-20th 2009.

"Coherence and fluctuations in non-Markovian baths",
School of Physics University of Kwazulu-Natal,
Durban (ZA), December 4th 2009.

2010 *"Current fluctuations and effective charges in the edges-states at $\nu = p/(2np+1)$"*,
Department of Condensed Matter Physics, Faculty of Mathematics and Physics, Charles University,
Prague, Czech Republic (CZ), June 2nd 2010.

"Noise and effective charges in edge states",
Department of Condensed Matter Physics, Weizmann Institute of Science,
Rehovot, Israel (IL), November 29th 2010.

2012 *"Quasiparticle agglomerates and environmental effects in the fractional quantum Halle edge states"*,
Dipartimento di Fisica "E.R. Caianiello", Università degli Studi di Salerno
Salerno, Italy (IT), March 21st 2012

"Non-equilibrium effects of 1/f noise and dissipation on quasiparticle tunnelling in Hall edge states",
NEST,CNR-NANO
Pisa, Italy (IT), October 2nd 2012

"Fluctuations in non-Markovian quantum systems",
Technische Universitaet Dresden
Dresden, Germany (D), October 12th 2012

2014 *"Multiple quasiparticle Hall spectroscopy investigated with a resonant detector"*,
Dipartimento di Fisica "E.R. Caianiello", Università degli Studi di Salerno
Salerno, Italy (IT), February 5th 2014

"Is magnon drag a possible explanation?",
Internal group seminar
Dipartimento di Fisica, Università di Genova
Genova, Italy (IT), March 27th 2014

"Multiple quasiparticle Hall spectroscopy investigated with a resonant detector",
Physics Department, University of Geneve
Geneve, Switzerland (CH), June 11th 2014

2015 *"High frequency measurements of fractional excitations in FQHE and topological insulators "*,
Nanophysics seminars,
O.V. Lounasmaa Laboratory, Aalto University University
Helsinki, Finland (FI), January 8th 2015

"Time dependent detection of fractional topological insulator & Heat exchange statistics in open quantum systems.",
Dipartimento di Fisica "E.R. Caianiello", Università degli Studi di Salerno
Salerno, Italy (IT), January 29th 2015

"Topological insulator from theory to experiments and viceversa.",
Institut de Física d'Altes Energies (IFAE), Departament de Física, Universitat Autònoma de Barcelona Bellaterra, Barcelona, Spain (ES) July 13th 2015

"High frequency measurements of fractional excitations in FQHE."
Victoria University of Wellington, Wellington, New Zealand (NZ), November 13th 2015

2016 *"Topological phase transitions detected with Josephson current-phase Discontinuities."*
International Workshop on Physics of 2D Crystals
Campofelice di Roccella, Italy (IT), May 30th - June 3rd 2016

"Transport properties in superconducting hybrid systems."
VII International Conference for young scientists "Low temperature physics"
B. Verkin Institute for Low Temperature Physics and Engineering, Kharkiv, Ukraine, June 7th 2016

2017 *"Signatures of topological transitions in low-dimensional Josephson junctions"*,
NANO Colloquia,
NEST, Pisa (IT), March 16th 2017

"Non-local entanglement control in quantum-dot Cooper pair splitters."
Quantum Transport Group, Universität Konstanz,
Konstanz (D), June 26th 2017

2018 *"Generation and manipulation of Majorana states in hybrid 2D Josephson junctions with ferromagnetic-insulators"*,
Buenos Aires (AR), April 18th 2018

"Majorana states in hybrid 2D Josephson junctions with ferromagnetic insulators"
Workshop COmpound MAterials, Nanoscale Devices ANd Terahertz Emission in Carbon and Hybrid Electronics 2018,
Marino, Rome (IT), June 13th-15th 2018

"Generation and manipulation of Majorana states in hybrid 2D Josephson junctions with ferromagnetic-insulators"
New Trends in Nonequilibrium Statistical Mechanics: Classical and Quantum Systems (nesmcq18)
Ettore Majorana Foundation and centre for scientific culture, Erice (IT), July 29th 2018

"Hybrid topological coherent nanodevices for quantum technologies"
University of Sherbrooke,
Sherbrooke (CA), November 28th 2018

2019 *"Hybrid topological coherent nanodevices for quantum technologies"*
Universitá di Salerno,
Salerno (IT), January 10th 2019

"Hybrid Topological Nanodevices for quantum technologies"
Lancaster University,
Lancaster (UK), May 24th 2019

"Entanglement manipulation in hybrid TI-S nano-devices"
International Conference Nano-M&D 2019 Properties
"Fabrication and Applications of Nano-Materials and Nano-Devices"
Paestum (IT), June 7th 2019

"Entanglement manipulation in hybrid TI-S nano-devices"
Frontiers of Quantum and Mesoscopic Thermodynamics
Prague (CZ), July 14th-20th 2019

"Non-local thermoelectricity & entanglement manipulation in hybrid-systems"
College on Energy Transport and Energy Conversion in the Quantum Regime
ICTP, Trieste (IT), July 12th-30th 2019

"Hybrid nanosystems: Non-local thermoelectricity & entanglement manipulation"
Weizmann Institute of Science
Rehovot, Israel (IL), November 13th 2019

2020 *"Nonlinear and non-local thermoelectricity in hybrid nano-systems."*
CNR-SPIN, Genova Campi
Genova (IT), January 21st 2020

"Nonequilibrium Josephson junctions: thermoelectricity and coherent effects."
CMD2020GEFES,
Madrid (online) August 31st- September 4th 2020

2021 *"Coherent transport and manipulation in topological Josephson junctions"*
"Topological Quantum Matter", Universidad Nacional de San Martín
Campus Miguelete Buenos Aires (AR), April 13rd-17th , 2020.*** Shifted to December 2020

Frontiers of Quantum and Mesoscopic Thermodynamics 2021 (FQMT'21)
Prague (CZ), July 18th -24th, 2021***

*** Events planned in the future

CONFERENCE ORAL CONTRIBUTIONS

1999 *"Sequential tunneling in a quantum wire with a double barrier"*,
International Workshop "Quantum transport in the frequency and time domains",
Bad Kleinkircheim, Austria (AU), 22th-24th February 1999.

2000 *"Luttinger behaviour of one dimensional quantum dot"*,
Annual Meeting of "TMR Phase Coherent Dynamics in Hybrid Nanostructures",
Cargèse, France (FR), 8th-12th May 2000.

"Luttinger behaviour of one dimensional quantum dot",
TMR Scuola di Ricerca Avanzata "Space-Frequency and Time-Resolved Quantum Transport",
Hamburg, Germany (D), 3rd-9th September 2000.

2001 *"Charge and spin transport through a one dimensional quantum dot"*,
Meeting Annuale 2001, "Nanoscale Dynamics, Coherence and Computing",
Màtrafüred, Hungary (H), 24th-28th April 2001.

2002 *"Spin transport in 1D quantum dots: effect of non-Fermi liquid correlations"*,
RTN Meeting "Nanoscale dynamics, coherence and computation", Università Roma Tre,
Roma, Italy (I), 23rd-26th April 2002.

2003 *"Shot noise in 1D quantum dots"*,
Meeting dell' INFM, "INFMeeting Genova 2003",
Magazzini del cotone, Genova, Italy (I), 23rd June 2003.

2004 *"The Full Counting Statistics in Single Electron Transistors: second order corrections"*,
Les Houches Summer School Session LXXXI "Nanoscopic Quantum Physics",
Les Houches, France (F), 28th June - 30th July 2004. Internal seminar.

"Full Counting Statistics of Single Electron Transistors: second order calculations"
International Workshop "Nanoscale Dynamics and Quantum Coherence", Hamburg University,
Hamburg, Germany (D), 19th-23rd September 2004.

2005 *"Full Counting Statistics in Non-Markovian Interacting Electron Systems"*,
DPG Berlin 2005, "Physik seit Einstein", Tiefe Temperature session, TU Berlin,
Berlin, Germany (D), 4th-9th Marzo 2005.

"Full Counting Statistics in Strongly Interacting Systems: Non-Markovian Effects",
MCRTN International Workshop "Nanoscale Dynamics and Quantum Coherence",
Matis-INFM Catania and Universitá of Catania, Catania, Italy (I), 2nd-5th Ottobre 2005.

2006 *"Full Counting Statistics in Strongly Interacting Systems: Non-Markovian Effect"*,
Marie Curie Actions"NANOELECTRONICS 2006:Novel Nanomaterials, Quantum Transport, and Noise of Electrons and Photons",
University of Lancaster, Lancaster, United Kingdom (UK), 8th-11th Tanuary 2006.

2008 *"Counting Statistics of Non-Markovian Quantum Stochastic Processes ´*,
"Workshop on Quantum Phenomena and Information: From Atomic to Mesoscopic Systems",
ICTP, Trieste, Italy (IT), 6th May 2008.

2009 *"Fluctuations in non-Markovian baths*,
"XXXI Convegno informale di Fisica Teorica",
Sestri Levante, Italy (IT), 8th-10th June 2009.

"Current fluctuations in a dissipative environmen",
20th International Conference on Noise and Fluctuations
Pisa, Italy(IT), 14th-19th June 2009.

2010 *"Noise and FCS in hybrid quantum-dot systems with superconducting leads"*,
SATT 15 National Congress of Superconuctivity,
Portoconte, Italy (IT), 13th-15th September 2010.

2013 *"Effects of $1/f$ noise and dissipation in quantum Hall edge states"*,
22nd. Conference on Noise and Fluctuations,
Montpellier, France (F), June 24th-28-th 2013.

2014 *"Resonant detector for multiple-qp Hall spectroscopy"*,
XXXIV Convegno Nazionale di Fisica Teorica,
Cortona, Italy (IT), May 28th-31st 2014.

"Resonant detector for multiple-qp Hall spectroscopy",
Dirac Materials, Superconductivity and Hybrid Nanostructures
Stockholm, Sweden (SW), June 16th-19th 2014.

"Resonant detector for multiple-qp Hall spectroscopy",
27th International Conference on Low Temperature Physics
Buenos Aires, Argentina (AR), August 10th-18th 2014.

"Resonant detector for multiple-qp Hall spectroscopy",
Condensed Matter in Paris-CMD25-JMC14
Paris, France (F), August 25th-29th 2014.

2015 *"Heat-exchange statistics in driven open quantum systems"*,
Winter School on Physics of Small Quantum Systems: Thermal and Topological Phenomena
Hotel Gustevelund, Tuusula lake, Finland (FI), January 12th-16th 2015

"Fractional quantum Hall spectroscopy investigated by a resonant detector",
7th Unsolved Problem on Noise, UPON2015
Casa Convalescència, Barcelon, Spain (ES), July 13th-17th 2015.

"Non-equilibrium effects in topological insulators edge states",
Workshop Quantum Transport in One Dimension
Max-Planck-Institut für Physik komplexer Systeme, Dresden, Germany (D), September 14th - 18th 2015.

"Fractional charge spectroscopy and non-equilibrium effects in topological protected edge states",
FISMAT15 (CNISM-CNR)
Universita' di Palermo, Palermo, Italy (I), September 27th- October 2nd 2015.

2016 *"(0D) Topological phase transitions in current-phase-relationship of nano-Josepshon-junctions"*,
ICSNN2016
Hong-Kong University, Hong-Kong, China (CN), July 31st- August 5th 2016.

"Josephson current-phase discontinuities detection of topological transitions",
nanoQT-2016
Kiev, Ukraine (UK), October 8th-14th 2016.

2017 *"Thermoelectrical effects in hybrid superconducting Josephson junctions"*,
DPG Tagungen Dresden 2017
Dresden, Germany (DE), March 20th 2017.

"Non-local entanglement control in quantum-dot Cooper pair splitters",
Quantum Africa 4
Tunis, Tunisia (DE), May 3rd 2017.

"Entanglement control in hybrid quantum-dot Cooper pair splitters",
FISMAT 2017
Trieste, Italy (IT), October 5th 2017.

2018 *"Generation and manipulation of Majorana states in hybrid 2D Josephson junctions with ferromagnetic-insulators"*,
International Conference on Superlattices, Nanostructures and Nanodevices ICSNN 2018
Madrid (ES), July 26th 2018.

2019 *"Manipulation of Cooper pair entanglement in hybrid topological Josephson junctions"*,
TT DPG Tagungen 2019
Regensburg (D), March 4th 2019.

2020 *"Nonequilibrium Josephson junctions: thermoelectricity and coherent effects"*
CMD2020GEFES Online
Madrid, but Online for COVID (E), August 31st - September 4th 2020

"Nonlocal and nonlinear thermoelectric effects in hybrid superconducting systems"
Quantum Science Theory seminar, Department of Applied Physics
(online zoom) Université de Genève, October 27th 2020

Poster contributions More than 85 abstract and poster contributions to international conference and meetings
,

DIDACTICAL ACTIVITIES

1998 Laboratory technician of "Experimental Physics III" and of the laboratory of Prof. Mauro Marinelli (INFN) at Dipartimento di Fisica
Università di Genova
A.A. 1998-1999

Didactical guide at scientific exposition"Imparagiocando"INFM Meeting di Rimini, 24th-30th June 1998

2001 Lecturer for a short cicle of lectures
“Possible experimental realizations of quantum computing systems“
for the PhD course“Quantum computation”
at PhD school Scuola di Dottorato in Fisica (XVI Ciclo)
Università di Genova
A.A.2001-2002

Tutor in General Physics I
of Diploma studies Corso di Laurea in Fisica
Università di Genova
A.A. 2000-2001

2002 Tutor in General Physics II
of Dipoloma studies Corso di Laurea in Fisica
Università di Genova
A.A. 2001-2002

2002 Lecturer "Introductive course in “C” language"
High school Liceo Scientifico “G. Bruno”
Albenga (SV)
A.S. 2002-2003

2004 Assistant (in english language)
Theoretische Physik II (Elektrodynamik)
Diploma Studies in Physics
Fakultät für Physik und Astronomie
Rühr Universität Bochum (Germania)
S.S. 2004

2005 Lecturer of a small cicle of lectures
“Dissipative systems: the Brownian particle and the two level system”
course in "Quantum Computation"
PhD school Scuola di Dottorato in Fisica (XX Ciclo)
Università di Genova
A.A.2004-2005

Assistant
General Physics I
Degree in Telecommunication Engineering
University of Genoa
A.A.2004-2005

2006 Assistant
Statistical Mechanics
Physics Degree
University of Genoa
A.A.2005-2006

Assistant
General Physics I
Degree in Telecommunication Engineering
University of Genoa
A.A.2005-2006

2009 Tutorial lecture
“Introduction to Full Counting Statistics in Non-Markovian Systems”
School of Physics
University of Kwazulu-Natal, Durban, South-Africa
A.A.2009-2010

2010 Physics Degree thesis supervisor
of Matteo Carrega with thesis title
“Transport and noise in the edge states of the Fractional Quantum Hall Effect”
Physics Department
University of Genoa, Genoa, Italy
A.A.2009-2010

2011 PhD Degree thesis supervisor
of Dario Ferraro with thesis title
“Neutral Modes Dynamics in the Composite Edge States of the Fractional Quantum Hall Effect”
Physics Department
University of Genoa, Genoa, Italy
A.A.2010-2011

Lecturer for the PhD course
“Strongly Correlated Electron Systems”
Physics Department
University of Genoa, Genoa, Italy
A.A.2010-2011

Physics Degree thesis supervisor
of Giacomo Dolcetto with thesis title
“Trasporto attraverso giunzioni estese tra stati di bordo dell’effetto Hall quantistico frazionari”
Physics Department
University of Genoa, Genoa, Italy
A.A.2010-2011

2012 Lecturer for the PhD course
“Strongly Correlated Electron Systems”(20hrs)
Physics Department
University of Genoa, Genoa, Italy
A.A.2011-2012

2013 Lecturer for the PhD course
“Strongly Correlated Electron Systems” (20hrs)
Physics Department
University of Genoa, Genoa, Italy
A.A.2012-2013

Tutor for second year Monograph PhD XXVII cycle
“Time Ordering and Full Counting Statistics: the third cumulant of the transmitted charge”
Student: Damiano Marian
A.A.2012-2013

Tutor for second year Monograph PhD XXVII cycle
“The magnon-drag correction to Seebeck effect”
Student: Francesca Telesio
A.A.2012-2013

2014 Stage at the Physics Department for students
“Il dualismo onda-corpuscolo nella fisica quantistica”
Physics Department, University of Genoa, Genoa, Italy
A.A.2012-2013

Tutor for second year Monograph PhD XXVIII cycle
“Magnetohydrodynamics and thermo-electric transport”
Student: Andrea Amoretti
A.A.2013-2014

Tutor for second year Monograph PhD XXVIII cycle
“Preliminary aspects of Conformal Field Theory”
Student: Giacomo Caruso
A.A.2013-2014

2015 Lecturer for the PhD course
“Transport properties in metals and semincoductors” (40hrs)
Physics Department
University of Genoa, Genoa, Italy
A.A.2014-2015

2017 PhD Degree thesis co-supervisor
of Gianmichele Blasi **[ongoing]**
PhD Course Scuola Normale Superiore Pisa.

2020 Physics Degree thesis supervisor
of Lorenzo Bernazzani **[ongoing]**
Physics Department
University of Pisa, Pisa, Italy

RESEARCH GRANTS

International

09/1999-01/2000 Contratto di collaborazione coordinata e continuativa presso il Dipartimento di Fisica Università di Genova.
Funding from MURST, PRIN1998
Coordinator: Prof. Dr. M. Sassetti

02/2000-04/2000 Contratto di collaborazione coordinata e continuativa at Dipartimento di Fisica Università di Genova.
Funding from MURST, PRIN1998
Coordinator: Prof. Dr. M. Sassetti

09/2002-11/2002 Contratto di collaborazione coordinata e continuativa at Dipartimento di Fisica Università di Genova.
Funding from MURST, PRIN1998
Coordinator: Prof. Dr. M. Sassetti

03/2003-06/2003 Contratto di collaborazione coordinata e continuativa at Dipartimento di Fisica Università di Genova.
Funding from MURST, PRIN2002
Coordiantor: Prof. Dr. M. Sassetti

07/2006 “Short Visit Grant” from European Science Foundation in the activity “Arrays of Quantum Dots and Josephson Junctions” to start the collaboration with Prof. A. P. Jauho Technical University of Denmark, Kongens Lyngby, Denmark

11/2010 “Short Term Mobility” 2010 from CNR with the project “Current Noise Spectrum, Cumulants and neutral mode effects in composite quantum Hall systems” to collaborate with Prof. M. Heiblum, Weizmann Institute of Science, Rehovot, Israel

01/2015 Ingoing "Short-Term Scientific Mission" from COST Quantum Thermodynamics with the project “Thermoelectric detection of energy relaxation in the quantum Hall regime” to collaborate with Dr. R. Sanchez and Dr. B. Sothmann

09/2015 “Short Term Mobility” 2015 from CNR co-funded with University of Wellington with the project “Charge and thermal transport in hybrid nanostructures in the presence of Coulomb interactions, proximity effects and coherence. ” to collaborato with Prof. M. Governale, Victoria University of Wellington, Wellington, New Zealand

International

2014-2018

“Coherent heat and energy transport in quantum systems” COHEAT
Marie Curie Reintegration Grant
200 Keuro of Dr. Paolo Solinas in the quality of scientist in charge

INTERNATIONAL PROJECT PARTECIPATION

1996-2000 “Phase Coherent Dynamics of Hybrid Nanostructures”
European project TMR, FMRX-CT96-0042

1998-2003 “Quantum Electron Transport in the Frequency and Time Domains”,
European project TMR, FMRX-CT98-0180

2000-2003 “Nanoscale Dynamics, Coherence and Computation”,
European project RTN, HPRN-CT-2000-00144

2004-2008 “Fundamentals of Nanoelectronics”,
European project of VI Program, MRTN-CT-2003-504574

2004	“Ferromagnetismus und Spintransport in Nanostrukturen”, Project of Deutsche Forshungsgemeinschaft DFG 703 42 166 (DFG Emmy-Noether)
2006	European Science Foundation programma intitolato “Arrays of Quantum Dots and Josephson Junctions”, Program of Short Visit Grant (outgoing)
2007	European Science Foundation programma intitolato “Arrays of Quantum Dots and Josephson Junctions”, Program of Short Visit Grant (ingoing)
2010-2013	MC-ITN “Nanoelectronics: Concepts, theory and modelling (NANOCTM)”’, People VII Programma Quadro EU FP7-PEOPLE-ITN-2008-234970 NANOCTM
2013-2014	IRON-SEA “Establishing the basic science and technology for Iron-based superconducting films for electronics applications”, FP7-NMP-2011-EU-Japan
2014-2016	COST Action MP1209 “Thermodynamics in the Quantum Regime”, EU-COST
2016-2018	ERC COMANCHE “COherent MANipulation and Control of HEat in solid- state nanostructures: the era of coherent caloritronics” , EU-ERC Consolidator Grant
2018-2019	CNR-CONICET cooperation programme “Energy conversion in quantum, nanoscale, hybrid devices”
2017-2019	Scuola Normal Superiore - Weizmann Institute of Science joint lab QUANTRA, MAECI, Ministry of foreign affairs and international cooperation Italian republic “Quantum Transport in nanoelectronics systems”

NATIONAL PROJECT PARTECIPATION

1998-2000	“Sistemi Correlati Quantistici in Bassa Dimensionalità”, PRIN-Cofin1998
1996-2001	“Sistemi Elettronici Fortemente Correlati a Bassa Dimensionalità”, Fondi di sezione dell’Istituto Nazionale per la Fisica della Materia (INFM)
1997-2003	“Trasporto Quantistico in Sistemi di Elettroni a Bassa Dimensionalità”, Progetto di Ricerca dell’Universitá di Genova
2000-2002	“Effetti Quantistici in Sistemi a Stato Solido di Bassa Dimensionalità”, PRIN-Cofin2000
2000-2002	“Quantum Coherence in Low Dimensional Systems” PAISS-INFM
2002-2004	“Effetti di spin in nanostrutture” PRIN-Cofin2002
2002-2004	“Nanostructured devices of oxides: transport and quantum coherence” FIRB02-MIUR
2005-2007	“Rumore in nanodispositivi con forti interazioni locali“ PRIN-Cofin2005
2014-2016	“Statistical Field Theory - Low Dimensional Systems. Integrable Models and Applications” INFN Initiative

EDITORIAL

Riviste

Member of Editorial board of
International Journal of Statistical Mechanics
Hindawi Publishing Corporation
from 22/01/2013 to 26/07/2016
http://www.hindawi.com/journals/ijsm/editors/

REFEREE

Projects evaluation

2005 US National Science Foundation (NSF)
Program Condensed Matter & Mat Theory(1)

2013 Partnership Programme-Joint Applied Research Projects-PCCA 2013
Executive Agency for Higher Education, Research, Development and Innovation Funding, National Plan for Research, Development and Innovation 2007-2013
Romanian Ministry of National Education

2016 Experimental Demonstrative Project- 2016 Call (PED2016) of Executive Agency for Higher Education, Research, Development and Innovation Funding (uefiscdi.gov.ro)
Romanian Ministry of National Education

2016 Referee Evaluators VQR 2011-2014
ANVUR, Ministero dell'Istruzione, dell'Universita' e della ricerca

Referee for Thesis

2014 Thesis referee for degree in Physics Corso di Laurea Magistrale in Fisica Universitá degli Studi di Genova for the candidate Filippo Maria Gambetta
2015 Thesis referee for degree in Physics Corso di Laurea Magistrale in Fisica Universitá degli Studi di Genova for the candidate Martina Meniero
2018 Thesis referee for degree in Physics Corso di Laurea Magistrale in Fisica Universitá di Pisa for the candidate Michele Fava
2018 Thesis referee for degree in Physics Corso di Laurea Magistrale in Fisica Universitá di Pisa for the candidate Pietro Maria Bonetti
2019 Commitee member for PhD defense of Condensed matter School of Scuola Normale di Pisa for the candidate Alberto Ronzani
2019 Commitee member for PhD defense of Condensed matter School of Scuola Normale di Pisa for the candidate Vasco Cavina

Journals

Nature Physics
Nature Comm.
Nature Physics Journal Quantum Information
Phys. Rev. Lett.
Ann. of Phys.
Phys. Rev. B
Phys. Rev. E
New. J. Phys.
Entropy
Journal of Low Temperature Physics
J. Stat. Mech. Theor. Exp.
Phys. Lett. A
Eur. Phys. Lett.
Physica Status Solidi B
Eur. Phys. J.
Foundation of Physics
Physica E
J. Phys. A
Beilstein Journal of Nanotechnology
Fortschritte der Physik - Progress of Physics

SCIENTIFIC ORGANIZATION

2006

Collaboration to the organization of Marie Curie Advanced Study Institute
"Quantum Optics and Computation",
Riomaggiore, 2nd-7th April 2006

1999 Collaboration to the organization to the International Conference "Quantum Electron Transport in the Frequency and Time Domains", Genova, 1st-4th October 1999

OUTREACH ACTIVITIES

2007 Seminar with title "Nanosciences and nanotechnologies for future applications" Università della Terza Età Uni. T. E. University of Genoa A.A.2006-2007

2008 Interview by popular science journal "Tuttoscienze" for the journal LaStampa November 19th 2008 for the publication of Phys. Rev. Lett. on quasiparticle agglomeration in the 2008.

2016 Participation with the role of scientific expert on the theme of Majorana fermions at the presentations in Bologna (29/05/2016), Genoa(04/05/2016) and Venice(12/05/2016) of the biographic film "Nessuno mi troverá" Director E. Eronico concerning the life of Prof E. Majorana.

(03/05/2016) Presenter at high-school Liceo Scientifico "E. Majorana" inside the MIUR project Progetto Ministeriale Alternanza Scuola Lavoro for scientific dissemination of research activities with title "Measure the Majorana level inside you" done in patnership between CNR-SPIN and CNR-ISMAC.

Invitation to participate as scientific expert for the presentation at the Science Festival of Genoa 2016 of the biographic film "Nessuno mi troverá" by director E. Eronico concerning the life of Prof E. Majorana.

2020 Partecipation as italian delegate for UNI (National standardization organization) to the CEN-CENELEC Focus Group Quantum Technologies, to propose a roadmap for standards in the Quantum Flagship initiative.

LANGUAGE

Mother tongue: Italian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
(*) English	B2	B2	C1	B2	B2

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
Common European Framework of Reference for Languages

(*)

Digital competences

SELF-ASSESSMENT				
Information Processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Proficient user	Independent user	Independent user

Digital competences - Self-assessment grid

INFORMATICS

Languages: C, LaTEX, Fortran, HTML, awk
OS: VMS, Unix, Linux (Ubuntu), Windows OS, Mac OS X
Programs: Mathematica, Matlab, Labview, Office

Luogo: Genova
Data: January 8, 2021
Firma: