SCIENTIFIC PRODUCTION

0. SUMMARY

- Highlights: 3 *Science*, 3 *Nature*, 3 *Nature physics*, 6 *Nature Communications*, 3 *PRX* all as principal investigator (PI) ; 13 *PRL* as PI or among first authors ; 1 monograph ; 2 articles for the diffusion to a broader scientific audience ; 1 dedicated full article in a mainstream scientific magazine (in '*La Recherche*' by S. Guilbaud, 09/2015).

- 58 peer-reviewed publications (51 as a main author, Google Scholar).

- Citations: 4374 (Google)

- h-index: 36 (Google)

The novelty of the developed approaches has repeatedly allowed us to make scientific breakthroughs, outside the main trends.

1. ARTICLES

Note: Distinctions are pointed out[1].

[1.1] *Energy redistribution between quasiparticles in mesoscopic silver wires*
F. Pierre, H. Pothier, D. Esteve, M.H. Devoret, J. Low Temp. Phys. **118**, 437 (2000); cond-mat/9912138.

[1.2] *Comparison of energy and phase relaxation in metallic wires*
A.B. Gougam, F. Pierre, H. Pothier, D. Esteve, Norman O. Birge, J. Low Temp. Phys. **118**, 447 (2000); cond-mat/9912137.

[1.3] *Multiple Andreev reflections revealed by the energy distribution of quasiparticles*
F. Pierre, A. Anthore, H. Pothier, C. Urbina, D. Esteve, Phys. Rev. Lett. **86**, 1078 (2001).

[1.4] *Electrodynamic dip in the local density of states of a metallic wire*
F. Pierre, H. Pothier, P. Joyez, N.O. Birge, D. Esteve, M.H. Devoret, Phys. Rev. Lett. **86**, 1590 (2001).

[1.5] *Electron-electron interactions in mesoscopic wires*
F. Pierre, Ann. Phys. (Paris) **26**, N.4 (2001); tel-00002410.

[1.6] *Observation of a controllable π-junction in a 3-terminal Josephson device*
J. Huang, F. Pierre, T.T. Heikkila, F.K. Wilhelm, N.O. Birge, Phys. Rev. B **66**, 020507(R) (2002).

[1] Approximately 1/3 of Nature publications are selected for a 'Nature News & Views'; ~1/3 (~1/4) of Science publications are selected for a 'Science Perspectives' (for the 'First Release' program previously called 'Science Express'); ~3 publications are selected each month for the 'Journal Club for Condensed Matter Physics', among ~1500 articles; about 100 papers out of the more than 18000 that APS publishes each year are chosen for coverage with a Viewpoint in Physics.

[1.7] *Dephasing by extremely dilute magnetic impurities revealed by Aharonov-Bohm oscillations*
F. Pierre, Norman O. Birge, Phys. Rev. Lett. **89**, 206804 (2002).

[1.8] *Magnetic-field-dependent quasiparticle energy relaxation in mesoscopic wires*
A. Anthore, F. Pierre, H. Pothier, D. Esteve, Phys. Rev. Lett. **90**, 076806 (2003).

[1.9] *Dephasing of electrons in mesoscopic metal wires*
F. Pierre, A.B. Gougam, A. Anthore, H. Pothier, D. Esteve, Norman O. Birge, Phys. Rev. B **68**, 085413 (2003).

[1.10] *An RF-driven Josephson bifurcation amplifier for quantum measurements*
I. Siddiqi, R. Vijay, F. Pierre, C.M. Wilson, M. Metcalfe, C. Rigetti, L. Frunzio, M.H. Devoret, Phys. Rev. Lett. **93**, 207002 (2004).

[1.11] *Intensity of Coulomb interaction between quasiparticles in diffusive metallic wires*
B. Huard, A. Anthore, F. Pierre, H. Pothier, Norman O. Birge, D. Esteve, Solid State Commun. **131**, 599 (2004); cond-mat/0404208.

[1.12] *Direct observation of dynamical switching between two driven oscillation states of a Josephson junction*
I. Siddiqi, R. Vijay, F. Pierre, C.M. Wilson, L. Frunzio, M. Metcalfe, C. Rigetti, R.J. Schoelkopf, M.H. Devoret, D. Vion, D. Esteve, Phys. Rev. Lett. **94**, 027005 (2005).

[1.13] *Emission/Absorption Asymmetry in the Quantum Noise of a Josephson Junction*
P.-M. Billangeon, F. Pierre, H. Bouchiat, R. Deblock, Phys. Rev. Lett. **96**, 136804 (2006).

[1.14] *Universal conductance fluctuations in epitaxial GaMnAs ferromagnets*
L. Vila, R. Giraud, L. Thevenard, A. Lemaître, F. Pierre, J. Dufouleur, D. Mailly, B. Barbara, G. Faini, Phys. Rev. Lett. **98**, 027204 (2007).

[1.15] *Very High Frequency Spectroscopy and Tuning of a Single-Cooper-Pair-Transistor with an On-chip Generator*
P.-M. Billangeon, F. Pierre, H. Bouchiat, R. Deblock, Phys. Rev. Lett. **98**, 126802 (2007).

[1.16] *AC Josephson effect and resonant Cooper pair tunneling emission of a Cooper Pair Transistor*
P.-M. Billangeon, F. Pierre, H. Bouchiat, R. Deblock, Phys. Rev. Lett. **98**, 216802 (2007).

[1.17] *Multicontact Measurements of a Superconducting Sn Nanowire*
D. Lucot, F. Pierre, D. Mailly, K. Yu-Zhang, S. Michotte, F. de Menten de Horne, L. Piraux, Appl. Phys. Lett. **91**, 042502 (2007).

[1.18] *Quantum Non-Demolition Readout Using a Josephson Bifurcation Amplifier*
N. Boulant, G. Ithier, P. Meeson, F. Nguyen, D. Vion, D. Esteve, I. Siddiqi, R. Vijay, C. Rigetti, F. Pierre, M. Devoret, Phys. Rev. B **76**, 014525 (2007).

[1.19] *Experimental Test of the Dynamical Coulomb Blockade Theory for Short Coherent Conductors*
C. Altimiras, U. Gennser, A. Cavanna, D. Mailly, F. Pierre, Phys. Rev. Lett. **99**, 256805 (2007).

[1.20] *Nonequilibrium Experiments in Mesoscopic Multi-terminal SNS Josephson Junctions*
M.S. Crosser, Jian Huang, F. Pierre, Pauli Virtanen, Tero T. Heikkilä, F.K. Wilhelm, Norman O. Birge, Phys. Rev. B **77**, 014528 (2008).

[1.21] *Out of Equilibrium Noise in Electronic Devices: From the Classical to the Quantum Regime*
P.-M. Billangeon, F. Pierre, H. Bouchiat, R. Deblock, J. Stat. Mech. (2009) P01041.

[1.22] *Magnetic-field antisymmetry of photovoltaic voltage in evanescent microwave fields as seen in a semiconductor Hall bar*
A. Chepelianskii, S. Guéron, F. Pierre, A. Cavanna, B. Etienne, H. Bouchiat, Phys. Rev. B **79**, 195309 (2009).

[1.23] *Non-Equilibrium Edge Channel Spectroscopy in the Integer Quantum Hall Regime*
C. Altimiras, H. le Sueur, U. Gennser, A. Cavanna, D. Mailly, F. Pierre, Nature Physics **6**, 34 (2010). (Selected for 'Journal Club for Condensed Matter Physics', 11/2009).

[1.24] *Plasmon scattering approach to energy exchange and high-frequency noise in ν=2 quantum Hall edge channels*
P. Degiovanni, C. Grenier, G. Fève, C. Altimiras, H. le Sueur, F. Pierre, Phys. Rev. B **81**, 121302(R) (2010).

[1.25] *Energy Relaxation in the Integer Quantum Hall Regime*
H. le Sueur, C. Altimiras, U. Gennser, A. Cavanna, D. Mailly, F. Pierre, Phys. Rev. Lett. **105**, 056803 (2010).

[1.26] *Tuning Energy Relaxation along Quantum Hall Channels*
C. Altimiras, H. le Sueur, U. Gennser, A. Cavanna, D. Mailly, F. Pierre, Phys. Rev. Lett. **105**, 226804 (2010).

[1.27] *A la recherche des interactions entre électrons dans les conducteurs unidimensionnels*
A. Anthore, H. le Sueur, C. Altimiras, U. Gennser, D. Mailly, F. Pierre, Images de la physique année 2010 (2011).

[1.28] *Strong back-action of a linear circuit on a single electronic quantum channel*
F.D. Parmentier, A. Anthore, S. Jezouin, H. le Sueur, U. Gennser, A. Cavanna, D. Mailly, F. Pierre, Nature Physics **7**, 935 (2011).

[1.29] *Quantum coherence engineering in the integer quantum Hall regime*
P-A. Huynh, F. Portier, H. le Sueur, G. Faini, U. Gennser, D. Mailly, F. Pierre, W. Wegscheider, P. Roche, Phys. Rev. Lett. **108**, 256802 (2012).

[1.30] *Chargeless heat transport in the fractional quantum Hall regime*
C. Altimiras, H. le Sueur, U. Gennser, A. Anthore, A. Cavanna, D. Mailly, F. Pierre, Phys. Rev. Lett. **109**, 026803 (2012).

[1.31] *Tomonaga-Luttinger physics in electronic quantum circuits*
S. Jezouin, M. Albert, F.D. Parmentier, A. Anthore, U. Gennser, A. Cavanna, I. Safi, F. Pierre, Nature Communications **4**, 1802 (2013).

[1.32] *Quantum limit of heat flow across a single electronic channel*

S. Jezouin, F.D. Parmentier, A. Anthore, U. Gennser, A. Cavanna, Y. Jin, F. Pierre, Science **342**, 601 (2013). (Selected for Science Express ; Dedicated Science Perspectives [B. Sothmann and C. Flindt, Science **342**, 569 (2013)] and 'La Recherche' full article [S. Guilbaud, La Recherche **503**, 58 (09/2015)]).

[1.33] *Limite quantique du flux de chaleur*
A. Anthore, S. Jezouin, F.D. Parmentier, U. Gennser, F. Pierre, Reflets de la physique **42**, 16 (2014).

[1.34] *Two-channel Kondo effect and renormalization flow with macroscopic quantum charge states*
Z. Iftikhar, S. Jezouin, A. Anthore, U. Gennser, F.D. Parmentier, A. Cavanna, F. Pierre, Nature **526**, 233 (2015). (Dedicated Nature News & Views [K. Le Hur, Nature **526**, 203 (2015)]).

[1.35] *Controlling charge quantization with quantum fluctuations*
S. Jezouin, Z. Iftikhar, A. Anthore, F.D. Parmentier, U. Gennser, A. Cavanna, A. Ouerghi, I.P. Levkivskyi, E. Idrisov, E.V. Sukhorukov, L.I. Glazman, F. Pierre, Nature **536**, 58 (2016). (Dedicated Nature News & Views [Y. Nazarov, Nature **536**, 38 (2016)]).

[1.36] *Primary thermometry triad at 6 mK in mesoscopic circuits*
Z. Iftikhar, A. Anthore, S. Jezouin, F.D. Parmentier, Y. Jin, A. Cavanna, A. Ouerghi, U. Gennser, F. Pierre, Nature Communications **7**, 12908 (2016).

[1.37] *Heat Coulomb blockade of one ballistic channel*
E. Sivre, A. Anthore, F.D. Parmentier, A. Cavanna, U. Gennser, A. Ouerghi, Y. Jin, F. Pierre, Nature Physics **8**, 145 (2018). (Put forward on cover page).

[1.38] *Tunable Quantum Criticality and Super-ballistic Transport in a 'Charge' Kondo Circuit*
Z. Iftikhar, A. Anthore, A.K. Mitchell, F.D. Parmentier, U. Gennser, A. Ouerghi, A. Cavanna, C. Mora, P. Simon, F. Pierre, Science **360**, 1315 (2018). (Selected for Science's First Release program; published as a Research Article).

[1.39] *Circuit quantum simulation of a Tomonaga-Luttinger liquid with an impurity*
A. Anthore, Z. Iftikhar, E. Boulat, F.D. Parmentier, A. Cavanna, A. Ouerghi, U. Gennser, F. Pierre, Phys. Rev. X 8, 031075 (2018). (Dedicated Physics Viewpoint [E. Dalla Torre, E. Sela, Physics **11**, 94 (2018)] and Focus article in the German Physik Journal [D.M. Kennes, S. Andergassen, V. Meden, Physik Journal, December 2018 issue, page 20]).

[1.40] *Macroscopic electron quantum coherence in a solid-state circuit*
H. Duprez, E. Sivre, A. Anthore, A. Aassime, A. Cavanna, A. Ouerghi, U. Gennser, F. Pierre, Phys. Rev. X **9**, 021030 (2019).

[1.41] *Transmitting the quantum state of electrons across a metallic island with Coulomb interaction*
H. Duprez, E. Sivre, A. Anthore, A. Aassime, A. Cavanna, U. Gennser, F. Pierre, Science **366**, 1243-1247 (2019).

[1.42] *Electronic heat flow and thermal shot noise in quantum circuits*
E. Sivre, H. Duprez, A. Anthore, A. Aassime, F.D. Parmentier, A. Cavanna, A. Ouerghi, U. Gennser, F. Pierre, Nature Communications **10**, 5638 (2019).

[1.43] *Universality at work – the local sine-Gordon model, lattice fermions, and quantum circuits*
A. Anthore, D.M. Kennes, E. Boulat, S. Andergassen, F. Pierre & V. Meden, Eur. Phys. J. Special Topics **229**, 663-682 (2020).

[1.44] *Dynamical Coulomb blockade under a temperature bias*
H. Duprez, F. Pierre, E. Sivre, A. Aassime, F.D. Parmentier, A. Ouerghi, A. Cavanna, U. Gennser, I. Safi, C. Mora, A. Anthore, Phys. Rev. Research **3**, 023122 (2021).

[1.45] *Fractional Entropy of Multichannel Kondo Systems from Conductance-Charge Relations*
C. Han, Z. Iftikhar, Y. Kleeorin, A. Anthore, F. Pierre, Y. Meir, A.K. Mitchell, E. Sela, Phys. Rev. Lett **128**, 146803 (2022).

[1.46] *Quasiparticle Andreev scattering in the ν= 1/3 fractional quantum Hall regime*
P. Glidic, O. Maillet, C. Piquard, A. Aassime, A. Cavanna, Y. Jin, U. Gennser, A. Anthore, F. Pierre, Nature Communications **14**, 514 (2023).

[1.47] *Cross-Correlation Investigation of Anyon Statistics in the ν=1/3 and 2/5 Fractional Quantum Hall States*
P. Glidic, O. Maillet, A. Aassime, C. Piquard, A. Cavanna, U. Gennser, Y. Jin, A. Anthore, F. Pierre, Phys. Rev. X **13**, 011030 (2023).

[1.48] *Probing single-electron scattering through a non-Fermi liquid charge-Kondo device*
E. Sela, D. Goldhaber-Gordon, A. Anthore, F. Pierre, Y. Oreg, Phys. Rev. B **107**, L161108 (2023).

[1.49] *Observing the universal screening of a Kondo impurity*
C. Piquard, P. Glidic, C. Han, A. Aassime, A. Cavanna, U. Gennser, Y. Meir, E. Sela, A. Anthore, F. Pierre, Nature communications **14**, 7263 (2023).

[1.50] *Observation of the scaling dimension of fractional quantum Hall anyons*
A. Veillon, C. Piquard, P. Glidic, Y. Sato, A. Aassime, A. Cavanna, Y. Jin, U. Gennser, A. Anthore, F. Pierre, Nature **632**, 517 (2024).

[1.51] *Signature of anyonic statistics in the integer quantum Hall regime*
P. Glidic, I. Petkovic, C. Piquard, A. Aassime, A. Cavanna, Y. Jin, U. Gennser, C. Mora, D. Kovrizhin, A. Anthore, F. Pierre, Nature communications **15**, 6578 (2024). (Selected for 'Journal Club for Condensed Matter Physics', 05/2024).

2. PEER-REVIEWED PROCEEDINGS

[2.1] *Microfabricated ultrasonic transducers: towards robust models and immersion devices*
I. Ladabaum, X. Jin, H.T. Soh, F. Pierre, A. Atalar, B.T. Khuri-Yakub, "1996 IEEE Ultrasonics Symposium. Proceedings", 335 (1996).

[2.2] *Probing interactions in mesoscopic gold wires*
F. Pierre, H. Pothier, D. Esteve, M.H. Devoret, A.B. Gougam, Norman O. Birge, "NATO Advanced Research Workshop on Size Dependent Magnetic Scattering", édité par V. Chandrasekar et C. Van Haesendonck (Kluwer, 2001) ; cond-mat/0012038.

[2.3] *Influence of magnetic field on effective electron-electron interactions in a copper wire*
A. Anthore, F. Pierre, H. Pothier, D. Esteve, M.H. Devoret, “Electronic Correlations: From Meso- to Nano-physics”, édité par T. Martin, G. Montambaux et J. Trân Thanh Vân (EDP Sciences, 2001) ; cond-mat/0109297.

[2.4] *Electron dephasing in metallic narrow wires at low temperatures*
F. Pierre, Norman O. Birge, J. Phys. Soc. Jpn **72**, 19 (2003).

[2.5] *Energy and phase relaxation in mesoscopic metals*
Norman O. Birge, F. Pierre, “Quantum Phenomena in Mesoscopic Systems”, édité par B. Altshuler, A. Tagliacozzo, V. Tognetti (IOS, 2003).

[2.6] *Electrons dephasing in mesoscopic metal wires*
Norman O. Birge, F. Pierre, “Fundamental Problems of Mesoscopic Physics Interactions and Decoherence” édité par I. Lerner, B. Altshuler, Y. Gefen (NATO series, Springer, 2004) ; cond-mat/0401182.

[2.7] *The Josephson Bifurcation Amplifier for Quantum Measurements*
I. Siddiqi, R. Vijay, F. Pierre, C.M. Wilson, L. Frunzio, M. Metcalfe, C. Rigetti, M.H. Devoret, “Quantum Computation: solid state systems”, édité par P. Delsing, C. Granata, Y. Pashkin, B. Ruggiero, P. Silvestrini (Kluwer, 2004) ; cond-mat/0507248.

3. INVITED CONFERENCES/ADVANCED SCHOOLS

Note: I have for policy the sharing of invited presentations with my team. For invited conferences performed by a member of my team on a project under my direct supervision, the name of the speaker is indicated.

[3.1] *Electrons in mesoscopic wires : energy exchange and dephasing*
Invited talk, plenary session of the KITP international conference: “Glassy States of Matter and Nonequilibrium Quantum Dynamics”, Santa Barbara University (USA), May 2003.

[3.2] *Dynamical Coulomb blockade in short coherent conductors*
Invited talk, plenary session of the national GDR2426 conference "Physique Quantique Mesoscopique", Aussois (France), March 19-22, 2007.

[3.3] *Dynamical Coulomb blockade in short coherent conductors*
Invited talk, plenary session of the international RTN Nano Meeting 2008 "Fundamentals of Nanoelectronics", Bremen (Germany), April 7-11, 2008.

[3.4] *Dynamical Coulomb blockade in short coherent conductors*
Invited talk, plenary session of the national RTRA conference “Quantum coherence and many-body correlations: From mesoscopic to macroscopic scales”, Orme des Merisiers, CEA, Saclay (France), October 22-23, 2008.

[3.5] *Energy relaxation in the quantum Hall regime*
Invited talk (H. le Sueur), plenary session of the national GDR 2426 conference "Physique Quantique Mesoscopique", Aussois (France), December 6-11, 2008.

[3.6] *Non-equilibrium edge channel spectroscopy in the integer quantum Hall regime*

Invited talk (C. Altimiras), Plenary session at the international Nanosciences Foundation workshop “Electronic noise and relaxation in nanostructures”, Grenoble (France), April 1-2, 2010.

[3.7] *Non-Equilibrium Edge Channel Spectroscopy in the Integer Quantum Hall Regime*
Invited talk (H. le Sueur), plenary session of the international RTN Nano Meeting 2010 "Fundamentals of Nanoelectronics", Bremen (Germany), April 7-11, 2010.

[3.8] *Energy relaxation in the integer quantum Hall regime*
Invited talk, plenary session of the international workshop “Physics of Micro and Nano Scale Systems”, Ystad (Sweden), June 20-24, 2010.

[3.9] *Exploring and tuning the dynamics along quantum Hall edge channels*
Invited talk, plenary session of the international symposium “ISNTT 2011”, Atsugi (Japan), January 11-14, 2011.

[3.10] *Nature of Edge Excitations in the Integer Quantum Hall Regime*
Invited talk (H. le Sueur), plenary session of the 7th “Rencontres de Moriond” international conference on quantum mesoscopic physics, La Thuile (Italy), March 13-20, 2011.

[3.11] *Exploring and tuning the dynamics along quantum Hall edge channels*
Invited talk, plenary session of the international conference ‘Electronic Properties of Two-Dimensional EP2DS-19’, Tallahassee (FL, USA), July 25-29, 2011.

[3.12] *Strong back-action of a linear circuit on a single electronic quantum channel*
Invited talk, plenary session of the workshop "Charge and heat dynamics in nano-systems”, Orsay (France), October 10-12, 2011.

[3.13] *Strong back-action of a linear circuit on a single electronic quantum channel*
Invited talk (F. Parmentier), plenary session of the national conference GDR 2426 "Physique Quantique Mesoscopique", Aussois (France), December 5 – 8, 2011.

[3.14] *Strong back-action of a linear circuit on a single electronic quantum channel*
Invited talk (A. Anthore), plenary session of the international “Advanced research workshop ‘Meso–2012’: Mesoscopic and strongly correlated electron systems — non-equilibrium and coherent phenomena at nanoscale”, Chernogolovka (Russia), June 17-23, 2012.

[3.15] *Energy transport in the quantum Hall regimes*
Invited talk (U. Gennser), ‘31st International Conference on the Physics of Semiconductors (ICPS 2012)’, Zurich (Switzerland), July 29-August 3, 2012.

[3.16] *Energy transfers in the quantum Hall regime*
Invited talk, plenary session of the international workshop ‘Quantum Transport in Correlated Systems’, Seoul (Korea), August 27-30, 2012.

[3.17] *Energy transfers in the quantum Hall regime*
Invited talk, 24th Conference of the EPS Condensed Matter Division (CMD-24)’, Edinburgh (UK), September 3-7, 2012.

[3.18] *Tomonaga-Luttinger physics in electronic quantum circuits*

Invited talk (A. Anthore), plenary session of the international workshop ‘Interferometry and Interactions in Non-Equilibrium Meso- and Nano- Systems’, Trieste (Italy), April 8-12, 2013.

[3.19] *Ultra-sensitive cryogenic voltage amplifier to probe mesoscopic circuits*
Invited talk (A. Anthore), plenary session of the international workshop ‘10th International Workshop On Low Temperature Electronics WOLTE10’, Paris (France), October 14-17, 2013.

[3.20] *Quantum limit of heat flow across a single electronic channel*
Invited talk (S. Jezouin), plenary session of the national conference GDR2426 ‘Physique quantique mesoscopique’, Aussois (France), December 9-12, 2013.

[3.21] *Quantum limit of heat flow across a single electronic channel*
Invited talk (A. Anthore), plenary session of the international workshop ‘NanoSaclay nanoelectronics’, Paris (France), December 10-13, 2013.

[3.22] *Energy relaxation, edge magnetoplasmons and heat transport: an experimental view*
Invited talk (U. Gennser), plenary session of the international conference ‘Emerging Phenomena in Quantum Hall Systems (EPQHS-5)’, Rehovot (Israel), July 07-09, 2014.

[3.23] *Quantum limit of heat flow across a single electronic channel*
Contributed talk, international conference ‘Low Temperature Physics (LT 27)’, Buenos Aires (Argentina), August 06-13, 2014.

[3.24] *Heat currents and their quantum limit in electronic circuits*
Invited talk (U. Gennser), international conference ‘International conference on the physics of semiconductors (ICPS 2014)’, Austin, Texas (USA), August 10-15, 2014.

[3.25] *Experimental investigation of the energy transfers in quantum Hall edge channels driven out-of-equilibrium*
Invited talk, International workshop ‘Equilibration and glassiness in classical and quantum systems’, Oxford (UK), September 26-27, 2014.

[3.26] *Quantum limit of heat flow across a single electronic channel*
Invited talk (F.D. Parmentier), workshop ‘Perspectives in Quantum Thermoelectricity: time-dependence, correlations & measurements’, Marseille (France), November 12, 2014.

[3.27] *Coherent-quantum-conductor circuits: from charge quantization to Dynamical Coulomb Blockade*
Invited talk (A. Anthore), plenary session of the national conference GDR2426 ‘Physique quantique mesoscopique’, Aussois (France), December 01-04, 2014.

[3.28] *Quantum laws of electricity in composite mesoscopic circuits*
Invited talk, international workshop ‘Quantum Nano Electronics Training (QNET)’, Pisa (Italy), December 10-11, 2014.

[3.29] *Quantum laws of electricity in composite mesoscopic circuits*
Invited talk, international workshop ‘Non-equilibrium dynamics of low-dimensional electronic systems’, Leipzig (Germany), January 12-15, 2015.

[3.30] *Quantum collapse of charge quantization on a metallic node*

Invited talk (A. Anthore), international workshop ’30 years of quantronics’, Paris (France), June 22-25, 2015.

[3.31] *Two-channel ‘charge’ Kondo effect*
Invited talk, international workshop ’30 years of quantronics’, Paris (France), June 22-25, 2015.

[3.32] *Two-channel ‘charge’ Kondo effect*
Invited talk, international workshop ‘Onedim-15’, Dresden (Germany), September 14-18, 2015.

[3.33] *Quantum limit of heat flow across a single electronic channel*
Invited talk (A. Anthore), international Conference ‘Third Conference on Quantum Thermodynamics’, Porquerolles (France), October 11-16, 2015.

[3.34] *La Thermique Quantique*
Keynote ‘opening’ invited talk, Congrès Français de Thermique 2016, Toulouse (France), Mai 31-June 3, 2016.

[3.35] *Multi-channel charge Kondo effect: a testbed for the many-body quantum physics*
Invited talk, 33rd International Conference on the Physics of Semiconductors (ICPS 2016), Beijing (China), July 31-August 5, 2016.

[3.36] *Quantum limit of heat flow across a single electronic channel*
Invited talk (S. Jezouin), international Conference ‘New trends in quantum heat transport and thermoelectrics (smr 2824)’, Trieste (Italy), August 22-26, 2016.

[3.37] *Controlling charge quantization with quantum fluctuations*
Invited talk, international workshop on materials and quantum circuits (LIA-Sherbrooke), Saint Lambert des Bois (France), April 19-20, 2017.

[3.38] *Quantum phase transitions and correlated Coulomb phenomena in circuits*
Lectures (3x1.5h), Physics advanced school ‘Aux frontières de la physique mésoscopique’ (3rd edition), Quebec (Canada), June 11-23, 2017.

[3.39] *Controlling charge quantization with quantum fluctuations*
Invited talk (A. Anthore), international conference ‘Frontiers of Quantum and Mesoscopic Thermodynamics’ (FQMT’17), Prague (Czech Republic), July 9-15, 2017.

[3.40] *Tunable quantum criticality and super-ballistic transport in a ‘charge’ Kondo circuit*
Invited talk, international conference ‘Nanophysics, from fundamental to applications’ (XIII Rencontres du Vietnam), Quy Nhon (Vietnam), July 30-Aug 05, 2017.

[41] *Tunable quantum criticality and super-ballistic transport in a ‘charge’ Kondo circuit*
Keynote ‘half plenary’ speaker, 28th international conference on ‘Low temperature physics’ (LT28), Gothenburg (Sweden), Aug 09-16, 2017.

[3.42] *Tunable quantum criticality in ‘charge’ Kondo circuits*
In-depth seminar, international doctoral training session ‘Frontiers of Condensed Matter’, Les Houches (France), Sept 18-29, 2017.

[3.43] *Quantum limit of heat flow and heat Coulomb blockade in a ballistic quantum channel*
Invited talk (U. Gennser), international workshop 'Thermal NanoSciences and NanoEngineering', Lille (France), November 23-24, 2017.

[3.44] *Quantum thermal transport in circuits*
Linnaeus Colloquium, Chalmers University, Gothenburg (Sweden), May 17, 2018.

[3.45] *Heat Coulomb blockade of one ballistic channel*
Invited talk, international conference 'Quantum Dynamics of Disordered Interacting Systems', Trieste (Italy), June 11-15, 2018.

[3.46] *Heat Coulomb blockade of one ballistic channel*
Invited talk (E. Sivre), International Conference on the Physics of Semiconductors (ICPS 2018), Montpellier (France), July 29-August 03, 2018.

[3.47] *Tunable quantum criticality and super-ballistic transport in a 'charge' Kondo circuit*
Invited talk, international workshop 'Quantum Information and Correlation in Quantum Dots', Daejeon (Republic of Korea), August 13-17, 2018.

[3.48] *Heat Coulomb blockade of one ballistic channel*
Invited talk (A. Anthore), international workshop QT60 on thermodynamics, thermoelectrics and transport in quantum devices, Helsinki (Finland), September 19-21, 2018.

[3.49] *Circuit Quantum Simulation of a Tomonaga-Luttinger Liquid with an Impurity*
Invited talk, national GDR2426 conference "Physique Quantique Mesoscopique", Aussois (France), December 03-06, 2018.

[3.50] *Tunable quantum criticality and super-ballistic transport in a 'charge' Kondo circuit*
Invited talk (A. Anthore), international conference "Rencontres de Moriond – Quantum Mesoscopic Physics", La Thuile (Italy), March 16-23, 2019.

[3.51] *Quantum thermal transport in circuits*
Physik-Kolloquium, Leipzig University, Leipzig (Germany), July 02, 2019.

[3.52] *Transmitting the quantum state of electrons across a metallic island with Coulomb interaction*
Invited talk (H. Duprez), national GDR2426 conference "Physique Quantique Mesoscopique", Aussois (France), December 02-04, 2019.

[3.53] *Transmitting the quantum state of electrons across a metallic island with Coulomb interaction*
Invited talk, International conference on topological materials science (TopoMat2019), Kyoto (Japan), December 03-07, 2019.

[3.54] *Quantum coherence in 2D electron-gas-based circuits*
Invited talk (A. Aassime), International conference NanoTN-2020: 'Nano-Materials: Theory and Experiments, Marrakech (Morocco), Februrary 19-22, 2020

[3.55] *Coulomb blockade of heat, noise and electricity in a temperature-biased quantum channel*
Invited talk, national GDR2426 conference "Physique Quantique Mesoscopique", Aussois (France), November 23-26, 2020.

[3.56] *'Charge Kondo circuits: a path to quantum criticality & exotic particles*
Physik-Kolloquium, Würzburg University, Würzburg (Germany), July 07, 2021

[3.57] *Reduced heat flow and electron teleportation: two consequences of Coulomb Interactions in micrometer size metallic island*
Invited talk (A. Anthore), international conference "Quantum Thermodynamics 2021" (QTD 2021), on-line, October 4-8, 2021

[3.58] *Dynamical Coulomb blockade under a temperature bias*
Invited talk (A. Anthore), national GDR2426 conference "Physique Quantique Mesoscopique", Aussois (France), November 29-December 02, 2021

[3.59] *Transmission of electron quantum state across a metallic island with Coulomb interaction*
Invited talk (A. Anthore), international conference "29th Low Temperature Physics" (LT29), Sapporo (Japan), August 18-24, 2022

[3.60] *Heat Coulomb blockade in ballistic circuits*
Invited talk, international conference "Fluctuations and Nonlinearities" (FaN 2023), Irsee (Germany), February 27-March 2, 2023

[3.61] *Noise signatures of Anyon statistics and Andreev scattering in the ν=1/3 fractional quantum Hall regime*
Invited talk (A. Anthore), international conference "DPG Spring Meeting of the Condensed Matter Section" (SKM23), Dresden (Germany), March 26-31, 2023

[3.62] *'Collider' investigation of fractional quasiparticles in the integer & fractional quantum Hall regimes*
Invited talk, international conference "Quantum Hall edge: new results and old questions", Villard de Lans (France), July 2-8, 2023

[3.63] *Dynamical Coulomb blockade under a temperature bias*
Invited talk (A. Anthore), National conference "Congrès général des 150 ans de la SFP" (SFP2023), Paris (France), July 3-7, 2023

[3.64] *Signature of anyonic statistics in the integer quantum Hall regime*
Invited talk (A. Anthore), national GDR2426 conference "Physique Quantique Mesoscopique", Aussois (France), November 27-30, 2023

[3.65] *Entropy of a Kondo impurity*
Invited talk (A. Anthore), international conference « Condensed Matter and Quantum Materials 2024 » (CMQM 2024) University of St Andrews, Scotland (UK), July 2-5, 2024

4. ARTICLES WITHOUT PEER-REVIEW

[4.1] *Quand la chaleur devient quantique*
S. Guilbaud (featured full article), La Recherche (mainstream scientific magazine) **503**, 58 (September 2015).

[4.2] *Physique quantique : record de froid pour des électrons*

F. Pierre, The Conversation (on-line mainstream media), article 65911, September 26, 2016.

[4.3] *Fractional-statistics-induced entanglement from Andreev-like tunneling*
G. Zhang, P. Glidic, F. Pierre, I. Gornyi, Y. Gefen; arXiv:2312.16556.