

# SCIENTIFIC PRODUCTION

## 0. SUMMARY

- Highlights: 2 *Nature*, 2 *Science*, 3 *Nature physics*, 2 *Nature Communications*, 1 *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).

- 45 peer-reviewed publications (41 as a main author, [Google Scholar](#)).

- Citations:                    2508 (Google)                    1599 (ISI)

- h-index:                    25 (Google)                    22 (ISI)

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

## 1. ARTICLES

*Note:* Prestigious distinctions are pointed out<sup>1</sup>. Citations are from Google Scholar.

- [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. 67 citations.
- [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. 102 citations.
- [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). 48 citations.
- [4] *Electrodynamic dip in the local density of states of a metallic wire*  
F. Pierre, H. Pothier, P. Joyez, Norman O. Birge, D. Esteve, M.H. Devoret, Phys. Rev. Lett. **86**, 1590 (2001). 47 citations.
- [5] *Electron-electron interactions in mesoscopic wires*  
F. Pierre, Ann. Phys. (Paris) **26**, N.4 (2001) ; tel-00002410. 20 citations.
- [6] *Observation of a controllable  $\pi$ -junction in a 3-terminal Josephson device*  
 J. Huang, F. Pierre, Tero T. Heikkila, Frank K. Wilhelm, Norman O. Birge, Phys. Rev. B **66**, 020507(R) (2002). 47 citations.

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<sup>1</sup> 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.

- [7] *Dephasing by extremely dilute magnetic impurities revealed by Aharonov-Bohm oscillations*  
F. Pierre, Norman O. Birge, Phys. Rev. Lett. **89**, 206804 (2002). 87 citations.
- [8] *Magnetic-field-dependent quasiparticle energy relaxation in mesoscopic wires*  
A. Anthore, F. Pierre, H. Pothier, D. Esteve, Phys. Rev. Lett. **90**, 076806 (2003). 74 citations.
- [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). 240 citations.
- [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). 360 citations.
- [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. 19 citations.
- [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). 200 citations.
- [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). 87 citations.
- [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). 45 citations.
- [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). 21 citations.
- [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). 22 citations.
- [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). 19 citations.
- [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). Times cited: 75.

- [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). 29 citations.
- [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). 23 citations.
- [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. 6 citations.
- [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).
- [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). 176 citations.
- [24] *Plasmon scattering approach to energy exchange and high-frequency noise in  $\nu=2$  quantum Hall edge channels*  
P. Degiovanni, C. Grenier, G. Fève, C. Altimiras, H. le Sueur, F. Pierre, Phys. Rev. B **81**, 121302(R) (2010). 65 citations.
- [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). 129 citations.
- [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). 87 citations.
- [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).
- [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). 31 citations.
- [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). 51 citations.
- [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). 31 citations.

- [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). 43 citations.
- [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)]). 117 citations.
- [33] *Limite quantique du flux de chaleur*  
A. Anthore, S. Jezouin, F.D. Parmentier, U. Gennser, F. Pierre, *Reflète de la physique* **42**, 16 (2014).
- [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)]). 52 citations.
- [35] *Controlling charge quantization with quantum fluctuations*  
S. Jezouin, Z. Iftikhar, A. Anthore, F.D. Parmentier, U. Gennser, A. Cavanna, A. Ouerghi, I.P. Levkivskiy, E. Idrisov, E.V. Sukhorukov, L.I. Glazman, F. Pierre, *Nature* **536**, 58 (2016). (Dedicated Nature News & Views [Y. Nazarov, *Nature* **536**, 38 (2016)]). 14 citations.
- [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). 10 citations.
- [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). 8 citations.
- [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). 3 citations.
- [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* (to be published, 2018).

## 2. PEER-REVIEWED PROCEEDINGS

- [1] *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. 30 citations.
- [2] *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. 8 citations.

[3] *Electron dephasing in metallic narrow wires at low temperatures*

F. Pierre, Norman O. Birge, J. Phys. Soc. Jpn **72**, 19 (2003). 2 citations.

[4] *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).

[5] *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. 4 citations.

[6] *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. 9 citations.

### 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.

[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.

[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] *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.

[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.

[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.

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

[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.

[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.

[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.

[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.

[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.

[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.

[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.

[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.

[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.

[28] *Quantum laws of electricity in composite mesoscopic circuits*

Invited talk, international workshop ‘Quantum Nano Electronics Training (QNET)’, Pisa (Italy), December 10-11, 2014.

[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.

[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.

[31] *Two-channel 'charge' Kondo effect*

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

[32] *Two-channel 'charge' Kondo effect*

Invited talk, international workshop 'Onedim-15', Dresden (Germany), September 14-18, 2015.

[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.

[34] *La Thermique Quantique*

Keynote 'opening' invited talk, Congrès Français de Thermique 2016, Toulouse (France), Mai 31-June 3, 2016.

[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.

[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.

[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.

[38] *Quantum phase transitions and correlated Coulomb phenomena in circuits*

Lectures (3x1.5h), Physics advanced school 'Aux frontières de la physique mésoscopique' (3<sup>rd</sup> edition), Quebec (Canada), June 11-23, 2017.

[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.

[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, 28<sup>th</sup> international conference on 'Low temperature physics' (LT28), Gothenburg (Sweden), Aug 09-16, 2017.

[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.



- [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.
- [44] *Quantum thermal transport in circuits*  
Linnaeus Colloquium, Chalmers University, Gothenburg (Sweden), May 17, 2018.
- [45] *Heat Coulomb blockade of one ballistic channel*  
Invited talk, international conference ‘Quantum Dynamics of Disordered Interacting Systems’, Trieste (Italy), June 11-15, 2018.
- [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.
- [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.

#### 4. ARTICLES WITHOUT PEER-REVIEW

- [1] *Quand la chaleur devient quantique*  
S. Guilbaud (featured full article), La Recherche (mainstream scientific magazine) **503**, 58 (September 2015).
- [2] *Physique quantique : record de froid pour des électrons*  
F. Pierre, The Conversation (on-line mainstream media), article 65911, September 26, 2016.