

Fabrice P. LAUSSY



Curriculum Vitæ as of May 2022

First name: Fabrice (*second name: Pierre*)
Family name: Laussy
Nationality: French
Born: September 30, 1977 in Clermont-Ferrand (France)
Marital status: Married (to Dr. Elena del Valle)
Two children (7 & 2 years old)
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Research Career

* Ph. D. 2005 in Theoretical Physics, Université Blaise Pascal, Clermont-Ferrand, France

Thesis advisor: Prof. Alexey Kavokin (alexey@phys.soton.ac.uk)
Thesis title: "Quantum Dynamics of Microcavity Polaritons"
Mention: «Très honorable avec félicitations du jury» (highest French distinction)

- * Post-Doc. (July 2005) with Prof. D. Whittaker, group of Prof. M. Skolnick, University of Sheffield, UK.
- * Post-Doc. Researcher (January 2007) with Prof. C. Tejedor, Univ. Autónoma de Madrid, Spain.
- * Post-Doc. Researcher (July 2008) with Prof. A. Kavokin, University of Southampton, UK.
- * Marie Curie IEF fellow (June 2010) leading the project SQOD with Prof. J.J. Finley at the Walter Schottky Institute, Technische Universität München, Munich, Germany.
- * Tenure-Track Professorship (July 2012) under the Ramón y Cajal program, Madrid, Spain.

- * *Currently:* - Full Professor (since March 2018) - Chair of Light-Matter Interactions & Director of Studies for Physics at the University of Wolverhampton, UK.
- Research consultant at the Russian Quantum Center (Moscow.)

Research Interests

* Light-matter interactions, photonics, quantum optics, nonlinear optics, multiphoton physics
quantum technologies, condensed matter physics, semiconductor optics, microcavities, etc.

Scientific Output

- * 104 papers in peer reviewed journals (full list at <http://laussy.org/wiki/Publications>).
- * 18 papers in Phys. Rev. Lett, 1 in Nature, 12 in other journals of the Nature family.
- * *h* factor 36 (36 papers quoted at least 36 times), over 5600 citations according to Google scholar.
- * Guest editor of two conference volumes: PLMCN3 in Phys. Stat. Sol. (c) (2003) & PLMCN7 in Superlatt. Microstruct. (2007) and of a Focus Issue in the New Journal of Physics (2015).
- * Selected publications:
 - [1] *A new way to correlate photons*, F.P. Laussy, Nat. Materials, 16, 398 (2017).
 - [2] *Emitters of N-photon bundles*, C. Sanchez Muñoz *et al.*, F.P. Laussy, Nat. Photonics, 8, 550 (2014).
 - [3] *Mollow triplet under incoherent pumping*, E. del Valle and F.P. Laussy, Phys. Rev. Lett., 105, 233601 (2010).
 - [4] *Self-interfering wavepackets*, D. Colas and F.P. Laussy, Phys. Rev. Lett. 116, 026401 (2016).
 - [5] *Roadmap on quantum light spectroscopy*, S. Mukamel *et al.*, F.P. Laussy, J. Phys. B.: At. Mol. Phys., 53:072002 (2020).
- * Participation to 54 international conferences, giving 26 Invited Talks.

Academic Output

* Books:

[1] *Microcavities*,

- A.V. Kavokin, J.J. Baumberg, G. Malpuech and F.P. Laussy, Oxford University Press
- 1st edition (hardback): 2008, ISBN 0199228949
- Revised edition (paperback): 2011, ISBN 0199602271
- 2nd edition (hardback): 2017, ISBN 9780198782995

* Chapters in books:

[1] *Photoluminescence lineshapes of quantum dots in Microcavities*,

F.P. Laussy, E. del Valle, A. Laucht, M. Kaniber, A.G. Tudela, J. Finley and C. Tejedor
in "*Quantum optics with semiconductor nanostructures*", Woodhead Publishing (2012)

[2] *Quantum dynamics of polariton condensates*,

F.P. Laussy,
in "*Exciton Polaritons in Microcavities*", New Frontiers, Springer Verlag (2012)

* Administration

- Student delegate in Scientific Council of Université Blaise Pascal (2002-2005).
- Founder of Ph. D. seminars "Florin Périer" of Université Blaise Pascal (2003-2005).
- Scientific secretary of international workshops "Colloque Franco-Russe" (2004 & 2005).
- Scientific secretary of PLMCN7 international conference, la Habana, Cuba (2007).
- Chairman of the Institute of Physics Evening Lectures in Wolverhampton (2017-2022).
- Referee for Nature, Nat. Phys., Nat. Com., Phys. Rev. (Lett., A & B), New J. Phys., etc.
- Thesis tribunal of D. Vishnevskii (2013), A. González Tudela (2014), A. Pervishko (2016), K. Bjorg Arnardottir (2017), G. Buonaiuto (2018), M. Abbarchi (HDR, 2019), V. Ha Bui (2020), G. Díaz Camacho (2021)
- Expert for the European Union [Marie Curie IEF] (2014-2019); EPSRC (UK); Agence Nationale de la Recherche (ANR), France; Deutsche Forschungsgemeinschaft (German Research Foundation), Germany; Dutch Research Council (NWO), Netherlands; Executive government agency of Poland National Science Centre (Narodowe Centrum Nauki), Poland; the Icelandic Research Fund, Rannis, Iceland; the National Research Foundation.

Grants

Only grants as PI (Principal Investigator) are listed:

- * SQOD: Marie Curie IEF, EU, as a fellow, 180k€, 2010-2012
- * SQUIRREL: Marie Curie IEF, EU, as scientist in charge, 73k€, 2014
- * POLAFLOW: ERC Starting Grant, EU, 293k€, 2012-2017
- * RyC: Tenure track from the *Ministerio de Ciencia e Innovación*, Spain, 173k€, 2012-2017
- * *CLIQUE: National Funding from Ministerio de Ciencia e Innovación, Spain, 115k€, 2016-2018*

Supervisor

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|---|---|
| - Michael Schropp (2010-2012, Master) | - David Colas (2013-2016, Ph. D.) |
| - Carlos Sánchez Muñoz (2012-2016, Ph. D.) | - J.-Pablo Restrepo Cuartas (2013-2015, Ph. D.) |
| - Elena del Valle (2013-2014, Marie Curie fellow) | - J.-Camilo López Carreño (2015-2018, Ph. D.) |
| - Dmitry Visnevskii (2013-2014, Post-Doc.) | - E. Zubizarretta Casalengua (2018-ongoing, Ph. D.) |
| - Blanca Silva Fernández (2013-2016, Ph. D.) | - S. Khalid (2018-ongoing, Ph. D.) |

Teaching

I am course director of the BSc Physics and head of Physics at the University of Wolverhampton where I teach the following courses:

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| 3AP001 Foundation Physics. 2017-2022. | 5AP003 Mathematical Methods. 2018-2019. |
| 4AP001 Optics. 2017-2019. | 5AP004 Thermodynamic and Statistics. 2018-2019. |
| 4AP003 Quantum Mechanics. 2017-2019. | 5AP005 Quantum Physics. 2018-2022. |
| 4AP004 Electromagnetism 1. 2017-2019. | 6AP010 Modern Physics. 2020-2022. |
| 4MM011 Mathematics for Physicists. 2019-2022. | 6AP003 Research 1. 2020-2022. |
| 4AP006 Scientific Computing. 2019-2022. | 6AP012 Electrodynamics. 2020-2022. |
| 5AP001 Electromagnetism 2. 2018-2019. | 6AP009 Research 2. 2020-2022. |

Languages

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| <i>French:</i> | Native |
| <i>English:</i> | Expert (lived over 6 years in UK) |
| <i>Spanish (Castellano):</i> | Expert (Spanish wife, lived over 7 years in Madrid) |
| <i>German:</i> | Elementary (Level B1 of the Goethe Institute) |
| <i>Russian:</i> | Elementary |