

# Fabrice P. LAUSSY

Curriculum Vitæ as of September 2024



*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 (10 & 4 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 ([kavokinalexey@gmail.com](mailto:kavokinalexey@gmail.com))  
*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.
- \* Chair of Light-Matter Interactions (full Professor)  
& Director of Studies for Physics at the University of Wolverhampton, UK (January 2017).
- \* *Currently:* Científico Titular at ICCM, CSIC (Spanish National Research Council, the 3rd largest research institution in Europe), since January 2024.

## Research Interests

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

## Scientific Output

- \* 112 papers in peer reviewed journals (full list at <http://laussy.org/wiki/Publications>).
- \* 18 papers in Phys. Rev. Lett, 1 in Nature, 15 in other journals of the Nature family.
- \* *h* factor 42 (42 papers quoted at least 42 times), over 7000 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] *Shining light on turbulence*,  
F.P. Laussy, Nature Photon., **17**:381 (2023).
- \* Participation to 66 international conferences, giving 38 Invited Talks.

## Academic Output

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### \* 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

### \* Three 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)

#### [3] Excitons in crystals,

F.P. Laussy & A.V. Kavokin  
in *Encycl. Cond. Mat. Phys.*, **3**:706 (2024)

### \* 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), A. Laneve (2023), I. Gnusov (2023), T. Karmstrand (2024).
- 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 (as PI)

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- \* 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
- \* CLAQUE: National Funding from Ministerio de Ciencia e Innovación, Spain, 115k€, 2016-2018
- \* HEISINGBERG: FET-EIC Pathfinder Challenges 2022, EU, 516k€, 2023-2027
- \* QRAB: National Funding from Ministerio de Ciencia e Innovación, Spain, 55k€, 2024-2027

## Supervisor

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- Michael Schropp (2010-2012, Master)
- Carlos Sánchez Muñoz (2012-2016, Ph. D.)
- Elena del Valle (2013-2014, Marie Curie fellow)
- Dmitry Visnevskii (2013-2014, Post-Doc.)
- Blanca Silva Fernández (2013-2016, Ph. D.)
- David Colas (2013-2016, Ph. D.)
- J.-Pablo Restrepo Cuartas (2013-2015, Ph. D.)
- J.-Camilo López Carreño (2015-2018, Ph. D.)
- E. Zubizarreta Casalengua (2018-2023, Ph. D.)
- S. Khalid (2018-ongoing, Ph. D.)

## Teaching

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I was course director of the BSc Physics and head of Physics at the University of Wolverhampton in the period 2017-2023, where I have taught 14 different full courses at all stages of the curriculum.

## 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 for a decade in Madrid)
<i>German:</i>	Elementary (Level B1 of the Goethe Institute)
<i>Russian:</i>	Elementary