**CHRISTIAN BROSSEAU**
**Physics Department, Lab-STICC (UMR CNRS 6285), Université de Bretagne Occidentale,**
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## EDUCATION

Habilitation, Université de Bretagne Occidentale, Brest, France-1995
Post-Doctoral Research Fellow, Harvard University, Cambridge, MA, USA-1989-1990, Advisor: Richard Barakat
Ph.D. (Physics), Université Joseph Fourier, Grenoble, France-1989

## PROFESSIONAL EXPERIENCE

**Distinguished Professor, Department of Physics, Université de Bretagne Occidentale, Brest, France, 2010 to present**
Full Professor, Department of Physics, Université de Bretagne Occidentale, Brest, France, 2003-2010
Professor, Department of Physics, Université de Bretagne Occidentale, Brest, France, 1997-2003
Associate Professor, Department of Physics, Université de Bretagne Occidentale, Brest, France, 1994-1997
Research Associate at Université Joseph Fourier, Grenoble, France, 1990-1994

## RESEARCH ACTIVITIES OUTLINE

I led the wave-matter interaction modeling and simulation group in the physics department, and supervises PhD students and postdoctoral research associates. My current interests include polarization and coherence of optical fields, plasmonics, image processing, nanophysics, biological physics, computational materials physics, and electromagnetic wave propagation in complex media. Our laboratory works closely on nanotechnology programs with many organizations including the CNRS (Centre National de la Recherche Scientifique), and a wide variety of research sponsors.

## PUBLICATIONS-BOOKS

**171 articles in international journals**, 20 invited articles and chapters in books
**116 communications in international conferences**, 28 invited communications in international conferences
**25 communications in national conferences**, 7 invited communications in national conferences
**2 patents**
*h*-index: **24** (01/12/12).
Nomber of citations for the most cited publication: **272** (07/01/13).
D. BICOUT, C. BROSSEAU, A. S. MARTINEZ, J. M. SCHMITT, "Depolarization of multiply scattered waves by spherical diffusers: Influence of the size parameter", *Phys.Rev.*E, 49, 1994, 1767-1770.
Number of citations (ref: Google Scholar): **2989** (07/01/13).
**Author of the book** *Fundamentals of Polarized Light: A Statistical Optics Approach*, (Wiley, New York, 1998), 405 pages, ISBN 0-471-14302-2.
**Editor of the book** *Prospects in Filled Polymers Engineering: Mesostructure, Elasticity Network, and Macroscopic Properties*, (Research SignPost, Trivandrum, 2008), 301 pages, ISBN 978-81-7895-341-0.

**PRINCIPAL INVESTIGATOR of the Modelling and Technology of Materials 'group of Lab-STICC**, **DIRECTOR of the Doctoral School SICMA** 2008-present

## FELLOWSHIPS

Fellow of the Optical Society of America (OSA)-2007
Fellow of the Institute of Physics, London (UK)-2005
Fellow of the Electromagnetics Academy, Cambridge (USA)-2000

## NAMED PHYSICS LECTURES

**Invited professor at the Summer** School "Sir George Gabriel Stokes Summer Workshop on Polarization Optics", Skreen (Ireland), 2002, organized by Sir Michael Berry.
**IAS Benjamin Meaker Visiting Professorship 2011,** Institute for Advanced Studies, University of Bristol (UK) http://www.bristol.ac.uk/ias/fellowships/meakers/brosseau.html

**EDITORIAL POSITIONS**
Editorial Board Member of ***Optics Communications*** 2005-2008
Editorial Board Member of ***Optics Letters*** 2005-2010
Advisory Board Member of ***American Journal of Physics*** 2008-2010
Editorial Board Member of ***Nanotechnology*** 2005-present
Editorial Board Member of ***Journal of Nanomaterials*** 2007-present
Advisory Board Member of ***Progress in Optics*** 2008-present
Associate Editor of ***Optics Express*** 2011-present
Member of the Steering Committee WAP Conference Series: Application of Materials and Chemical Engineering 2012-present
Associate Editor of ***Progresses in Nanotechnology and Nanomaterials*** 2012-present
Associate Editor of ***Journal of Applied Physics*** 2012-present

**Guest Editor** of the **Journal of Nanomaterials** Special Issue (October 2007) "**Modeling and Characterization of the Interaction of Electromagnetic Wave with Nanocomposites and Nanostructured Materials**"
**Guest Editor** of the **Journal of Nanomaterials** Special Issue (June 2010) "**Magnetoelectricity : A Bridge across the Disciplines of Nanotechnology, Materials Science, and Electromagnetism**"

**EXPERTISE (selected)**
I do **consulting work for INTAS** (International Association for the promotion of co-operation with scientists from the New Independent States of the former Soviet Union) which is a group of European experts for the evaluation and selection of funding of research projects of scientists from the former Soviet Union.
I was an external examinor of "Research Grant Proposals" for Hong Kong University in 2001 and 2002.
In 2004 I was an **external examinor** of a Ph. D. thesis of the Department of Physics, Tezpur University, Napaam, Tezpur-784 028, Assam, India.
In 2004, I was "**international peer**" to evaluate the funding of the 2004-2007 research program of Prof. D. S. McLachlan, by the South African National Research Foundation.
In 2006, I was **external examiner** of the tenure dossier of X. Intes, assistant professor at the Department of Biomedical Engineering at Rensselaer Polytechnic Institute, NY, USA.
In 2009, I was "**oversea external examiner**" to evaluate the PhD manuscript (doctoral thesis), "Raman and Optical Characterization of Tungsten Bronze Niobates Thin Films and Nanocrystals", of Liu Wenchao (advisor Prof. C. L. Mak), Department of Applied Physics and Materials Research Centre, The Hong Kong Polytechnic University.
In 2009 and 2012, I was solicited to be a member of a panel of european experts to **evaluate the funding of the Estonian Nanotechnology Competence Centre** by Fonds FEDER
In 2009, I was elected at the **Committee Member** du Dielectrics Group, IOP, UK
In 2010, I was solicited to evaluate the candidacy of Issouf Fofana for a Canadian **Research Chair** level 1
In 2010, 2011 and 2012, I was solicited to expertise research projects submitted to the **Russian Call** "**Measures to Attract Leading Scientists to Russian Educational Institutions**" funded by the **New Eurasia Foundation**

**WORKSHOP, CONFERENCES CHAIRED, AND CONFERENCE COMMITTEES (selected)**
Member of the Conference Committee of the International Conference Polarimetry and Ellipsometry, Kazimierz Dolny 1996 (Poland), 1996.
Organizer and Conference Chair of "Composite Materials Modeling: Worshop on Complex Media and Measurement Techniques", PIERS 1998: Progress in Electromagnetics Research Symposium, Nantes (France), 1998.
Conference Chair of "Basic Polarimetric Theory and Applications", 4th International Workshop on Radar Polarimetry, Nantes (France), 1998.
Conference Chair of "Electronics", 5th International Conference on Composites Engineering, Las Vegas (USA), 1998.
Organizer and Conference Chair of "Composite Materials Modeling", PIERS 2000: Progress in Electromagnetics Research Symposium, Cambridge (USA), 2000.
Conference Chair of "Nano : Materials Characterization", 9th International Conference on Composites Engineering, San Diego (USA), 2002.

Session chair, 12th Biennal IEEE Conference on Electromagnetic Field Computation (CEFC 2006), Miami (USA), 2006.
Session chair "Mathematical Modeling of Composites", 14th International Conference on Composites Engineering, Boulder (USA), 2006.
NSF Review Panels, 1999-2006
Scientific committee member of "Rencontre Internationale de Spectroscopie et d'Optique" (RISO 2007), Université Ibn Tofail, Kénitra (Maroc), 2007, President of the Session "Nanotechnologies and Photonics", Dakhla (Morocco), 2010.

**COURSES TAUGHT**
Polarization and optical coherence, Electromagnetism, Materials Science, Computer Simulation Methods in Physics, Heterostructures and Semiconductors, Nanophysics