# **Antoine GEORGES**

Born April 14, 1961. Citizenship: French

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### **Email and Websites:**

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### **Brief overview of current scientific interests:**

My field of research is, broadly defined, the physics of large and strongly interacting quantum systems. This includes materials with strong electron correlations (such as transition-metal and rare-earth compounds), their modeling and theoretical description, and also the physics of ultra-cold atoms in optical lattices. My research uses a combination of analytical and computational tools, many-body methods and electronic structure techniques. Prior to my work on quantum many-body systems, my research focused on the statistical physics of disordered systems. I am best known for being one of the co-inventors of `Dynamical Mean-Field Theory' [see e.g. Reviews of Modern Physics, 68 (1996) 13].

# **Academic degrees:**

BSc, Ecole Polytechnique, 1983 PhD, École Normale Supérieure and Université Paris-Sud, 1988 « Habilitation à diriger des recherches », 1992

### **Previous positions and career:**

Chargé de Recherche at CNRS, LPT-ENS, École Normale Supérieure (1987-1998) Research Associate (1989-1990) and 'Physics Department Theoretical Fellow' (1990-1991), Princeton University

Directeur de Recherche at CNRS, LPT-ENS, Ecole Normale Supérieure (1998-2004) Directeur de Recherche at CNRS, CPHT, Ecole Polytechnique (2004-2009) Chairman of the Physics Department, Ecole Polytechnique, 2006-2009

### **Academic Distinctions and Awards:**

1983: Prix Louis Armand, Ecole Polytechnique.

1990 : Prix de l'Académie des Sciences Anatole et Suzanne Abragam.

2004: Prix Dargelos

2006: <u>Europhysics Condensed Matter Prize</u> of the European Physical Society with Gabriel Kotliar, Walter Metzner and Dieter Vollhardt, *'For the development and application of the dynamical mean-field theory'*.

2007: Silver Medal of CNRS

2011: Elected Member of Academia Europaea

- 2011: Arnold Sommerfeld lecturer, LMU, Munich.
- 2011 : Erwin Schrödinger lecturer, ETH-Zürich
- 2014: Chandrasekhar lecturer, ICTS, Bangalore, India
- 2014: Hamburg Prize for Theoretical Physics
- 2014: Elected member of the French Academy of Sciences
- 2017: Induced in the French "Legion d'Honneur" order (with rank of "chevalier").
- 2018: Doctorate Honoris Causa, University of Sherbrooke, Canada
- 2020: <u>Anesur Rahman prize of the American Physical Society</u> "For the development of the Dynamical Mean Field Theory as a tool for the computation of properties of strongly correlated materials"
- 2022: <u>Feenberg Memorial Medal</u> for Many-Body Theory (with Gabriel Kotliar and Dieter Vollhardt)

2012-2021: Awardee of a collaborative `Synergy' grant `Frontiers in Quantum Materials Control' of the European Research Council, bringing together 4PIs (A.Cavalleri, Hamburg; J-M. Triscone, Geneva; D.Jaksch, Oxford, A.G., Paris)

**Publications** (as of 2022): 252 peer-reviewed publications, cited 24680 times (H=69) according to ISI-web of science – 36849 times (H=84) according to Google scholar.

Full list of publications available from:

https://publons.com/researcher/1739928/antoine-georges/

 $\underline{https://scholar.google.fr/citations?user=sCdnMVYAAAAJ\&hl=fr\&oi=ao}$ 

#### **Invited Conferences:**

Invited speaker at  $\sim 80$  national and international conferences over the last 10 years Invited professor or scientist at: KITP-University of California Santa Barbara, ICTP-Trieste, Yukawa Institute, EPFL, University of Geneva, ETH Zurich.

# **Committees and Advisory Boards:**

Member of the National Committee of CNRS, France, 2002-2004

Member of the Board and Administrative Council, Ecole Polytechnique, 2004-2010 Scientific Advisory Board, Max Planck Institute for Condensed Matter Physics, Stuttgart, Germany (2012, 2015 - Chair)

Member of the Advisory Board of the CIFAR Quantum Materials program (2013-2017) Member of the Europhysics Prize committee of the European Physical Society (2014-2020)

Member of the Scientific Committee of CEA, France (Commissariat à l'Energie Atomique et aux Energies Alternatives)

Member of the Advisory Board of the Stuart Blossom Quantum Materials Institute, University of British Columbia, Vancouver (Canada)

Member of the Scientific Advisory Board of the 'Institut Quantique' Sherbrooke (Canada)

Member of the 'Unité Mixte Internationale' of the French Centre National de la Recherche Scientifique (CNRS) bringing together researchers from France and from Université de Sherbrooke, Canada.