

## PERSONAL INFORMATION

### MANGIN, Stéphane

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Date of birth: September 17<sup>th</sup> 1971, Nationality: French



## EDUCATION

- 2006      **Habilitation** University Henry Poincaré (UHP) - Nancy (France)
- 1997      **PhD in Physics**, "Domain wall nucleation and propagation in a nanostructure: The domain wall junction" University Joseph Fourier (UJF) - Grenoble (France).
- 1994      **MSc in Condensed Matter Physics**, (UJF) - Grenoble (France)

## CURRENT POSITION(S)

- 2008-      **Full Professor**, Université de Lorraine – Nancy (France)
- 2010 -      **Head of the Nanomagnetism and Spintronic team** of the Université de Lorraine - 50 members (15 researchers + 20 students PhD & Masters, 15 Post-Doc and visitors) Budget: 1 M€ /year (From ANR, EU, UL, CNRS)
- 2012-      **Scientific Director** of a large user scientific facility, unique in the world: *TUBE-Davm* (70 meters under ultra-high vacuum to connect 30 equipment clusters to grow and characterize material at the nanoscale: Budget: 19 M€
- 2015-      **Co-Director** of the Associated International Laboratory (LIA) on Nanoelectronics (CNRS – University of California San Diego)
- 2016-      **Project Leader** of "Nanomaterials for smart sensors": one of the 6 projects supported by the Université de Lorraine of Excellence. Budget: 2,5 M€ for 4 years

## PREVIOUS POSITIONS

- 2012-13      **Invited Professor** at University of California San Diego
- 2004-05      **Visiting Scientist** at the Almaden Research Center California San Jose (USA)
- 1998-07      **Assistant Professor** at the University Henri Poincaré - Nancy (France)
- 1997-98      **Post-Doc** on Spintronics, "Laboratorium VSM" - Leuven (Belgium)

## SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

- 2003–      *13 Post-docs; 18 PhD Students; 18 MSc Students; 27 co-directed internships with Laboratories from UC San Diego, New York University, NTHU-Taiwan*

## TEACHING ACTIVITIES

- 1996-2019      Science and Technologies Department Université de Lorraine – Nancy (mechanics, electro-magnetism, optics, thermodynamics, solid state physics) Ecole des Mines de Nancy, Université de Lorraine – Nancy (FR) (quantum mechanics, statistical physics, solid state physics, mathematic for physics)
- 2012-2013      Department of Engineering, University of California San Diego (USA): lectures on nanomagnetism, nanomaterials, dielectrics, spintronics
- 2014-2015      Department of Physics, New York University (USA): lectures on electrostatics

## OUTREACH ACTIVITIES AND SCIENTIFIC COMMUNICATION

- **Event organiser of three large international events** for high-school students and visitors on magnetism in 2002 (600 attendees) 2); on superconductivity in 2011 (700 attendees) 3) on nanoscience in 2015 (1500 attendees)
- **50 presentations** on magnetism and superconductivity in higher and elementary schools for approximately 1000 students in France and 100 in the USA
- **12 Radio and TV appearances** on French National Media – two videos on material sustainability and data storage

- **180 publications** in peer-reviewed journals (in renowned journals like Science, Nature Mat, Advanced Mat, Nature Electronic, Nature Com, and Physical. Review. Letters)
- **2 Editorials** for Euro.phys. J. B, "Special issue on Exchange bias" "Special issue Spin Transfer"
- **1 Book chapter:** Springer Tracts Modern Physics "Magnetic Nanostructures"
- **60 Invited talks** in international conferences (MMM, MML, Intermag, MRS, etc..)
- **73 Invited seminars** in international laboratories
- **6 Tutorials** in international school
- **127 Oral presentations** (109 in international conferences)

#### ORGANISATION OF SCIENTIFIC MEETINGS

- **Organiser:** *International Workshop on Spin Transfer: IWST'06, IWST'11 IWST'13, IWST'16*
- **Organiser:** *Interaction between Light and Nanomagnetism Workshop - 2015 (Nancy)*
- **Organiser:** *Magnetisation dynamics in Nano-Object Workshop (2017)*
- **Organiser:** *IEEE Frontiers in Magnetism (2017)*
- **Organiser:** *Magnetic Nano-object workshop (2017)*
- **Organiser:** *NanoMaterials Magnetic Single Nano-Object Workshop – M-SNOW'08 and M-SNOW'14 (Nancy), M-SNOW'12 (Les Houches), M-SNOW'18 (Nancy)*
- **Member of the Program Committee,** MMM-Intermag Conference – San Diego (USA) - 2016
- **Program Co-Chair,** MMM Conference – New Orleans (USA) -2016
- **Co-organiser of 13 conferences (6 national and 7 international)**
- **Session Chair** for 23 international conference sessions (MMM, Intermag, MRS etc ...)

#### COMMISSIONS OF TRUST AND MEMBERSHIP IN SCIENTIFIC SOCIETIES, FELLOWSHIPS, AWARDS

- 2015 **Co-Founder** of the French-US International Associated Laboratory on Nanoelectronics on University of California, San Diego Campus, USA
- 2013- **Member of the scientific committee**, of the OPECST (French Parliamentary Office for Evaluation of Scientific and Technological Options Presentation)
- 2006- **Jury Member** of 46 Ph.D thesis or Habilitation (HDR)
- 2019- **President** of the IEEE Magnetic Society France Chapter
- 2014-18 **Member** of the Administrative Committee of the IEEE Magnetics Society
- 2010-15 **President** of the local section of the French Physics Society
- 2014- **International Friend** of the American Physics Society (APS)
- 2012- **IEEE Senior Member**
- **Member** IEEE Magnetics Society of the CEC (Conference Executive Committee) of the IEEE
- **Referee** for Science, Nature Material, Phys. Rev. B, Phys. Rev. Lett, App. Phys. Lett.
- 2018 **Fellow** of the American Physics Society
- 2017- **Senior Member** of the "Institut Universitaire de France"
- 2015- **Member** of the Science Academy of Lorraine
- 2007-12 **Junior Member** of "Institut Universitaire de France" (IUF). IUF gathers the Top 1 % of all university professors selected by an international Jury with the aim of fostering scientific research of professors
- 2008 **First Research Prize** from the Lorraine region - one Laureate per year

#### MAJOR COLLABORATIONS

- **Prof Eric Fullerton**, in nanomagnetism, CMRR, UC San Diego (USA); more than 35 common publications, two co-directed PhDs, nine co-directed internships, creation of an international laboratory on nanoelectronics, and organisation of joint conference
- **Prof Andrew Kent** in spintronics, Department of Physics, New York University (USA); 18 common publications, one co-directed PhD, five co-directed internships
- **Prof Weisheng Zhao** in spintronics, Albert Fert Laboratory, Beihang University (China); six common publications, five students exchanged