

Olivier FRUCHART

Senior scientist, CNRS

Born 1971, married, one child

INAC-SPINTEC (Univ Grenoble Alpes, CEA, CNRS)

25, Avenue des Martyrs – 38054 Grenoble – France

Olivier.Fruchart@cea.fr

<http://perso.neel.cnrs.fr/olivier.fruchart> (to be moved)

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MILESTONES

2011 : Senior research scientist at CNRS.

2003 : Habilitation diploma, by *Institut National Polytechnique de Grenoble* (Grenoble-INP).

1999 : CNRS tenure Junior research scientist, Laboratory Louis Néel (Grenoble).

1998-1999 : Post-doctoral stay in the MPI in Halle (Germany), supervised by J. Kirschner.

1994-1998 : PhD in Laboratoire Louis Néel, supervised by D. Givord and J.-P. Nozières.

1991-94 : Undergraduate in École Normale Supérieure (ENS); Master in Solid State Physics (Orsay)

RESEARCH

My research topic is **magnetism and spintronics of low-dimensional structures, with a special focus on magnetization processes with and within domain walls**. I am mostly concerned with **fundamental processes**. I investigate **model systems**, for a better knowledge and control. This lead me to develop an expertise at the frontier of several areas : experimental and theoretical micromagnetism ; surface and interface magnetism, material science; epitaxial growth and chemical synthesis, particularly for self-organization. My main current focus is fundamental issues related to the prospects for a 3D race-track memory using magnetic nanowires. I am currently coordinating a European project on this topic (<http://mem3d.eu>).

MAIN TEACHING ACTIVITIES (TOTAL 900H)

2012- : Master lectures (N2, Grenoble), topic : *Nanomagnetism and spintronics*.

2006- : PhD lectures at Grenoble Universities : *Nanomagnetism and spintronics*. Various practicals.

2002 - 2006 : Master-Pro Technics and Application of Physique in Grenoble, speciality Engineering of Magnetic Systems : 'Magnetic Thin Films and Nanostructures'.

1993-95 / 1999-2001 : teaching ('colles') in Physics in 'preparatory classes', Grenoble.

1995 - 1998 : Practicals and lectures in Joseph Fourier University, Grenoble.

RESEARCH OUTPUT

- **32 invitations in conferences / workshops; 73 seminars and invited lectures** in schools
- **57 publications** (+19 proceedings), including **2 review articles. 2 chapters, book under way.**
- **Invited Editor** for two series of articles (C. R. Phys., French Physical Society bulletin)
- **14 PhD advisor** (incl. 10 as main), **14 Master-2 advisor** (incl. 12 as main)

MANAGEMENT AND ORGANIZATIONAL POSITIONS

- Deputy director for SPINTEC Laboratory (2016 –).
- Deputy director for the **department of Nanosciences at Institut NEEL** (2011-2015)
- Creator and organizer of the **European School on Magnetism** (2007-), creator of Magnetism.eu
- **Scientific committees** (JSI, JMC7&JMC9, symposium at ICCG14/ICVGE12, Symposia at JEMS06&13, Dautreppe2014, ICMFS2013&15, JEMS2016), **organizing committees** (ESM, JEMS01, CLN2004, JSI2008, Nanomagnets 2009, Dautreppe 2009, IWMNT2015)
- **Webmaster of scientific Web sites** (Magnetism.eu, ESM, lab group, conferences, Schools etc.).
- **Societies:** French & European Physical Societies, IEEE Magnetics Senior Member

EXPERTISE

- **Evaluation Board of CNRS** (Comité National section 03, 2004-2009), Advisory Board of the French Physical Society, Condensed Matter Division (2005-2008).
- **Program committee at Synchrotron Soleil**, "Solid state physics / Materials / Nano-sciences: electronic properties" (2009-2014); and advisory board of several beamlines and instruments.
- **Expert for OMNT** (Micro- and Nano-Technology Watch Group, 2005-2010).
- **President of the scientific committee of Labex NIE** (Strasbourg, 2012-)