

# Vincent REPAIN

Age : 36 (13/02/1975)

Professor

University Paris Diderot – Paris 7

Institut Universitaire de France

Matériaux et Phénomènes Quantiques (MPQ)

e-mail : vincent.repain@univ-paris-diderot.fr

tél.: 0033-1- 57 27 62 91

## DIPLOMA AND FORMATION

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- 2008 **Habilitation à Diriger des Recherches de l'Université Paris Diderot** : "Magnetization reversal in nanostructured systems"
- 2001-2002 **Post-doctoral period** in the Solid State Physique laboratory, LPS, Orsay (group of J. Ferré)
- 2001 **PhD of the University Paris Diderot** specialty Solid state physics, mention Très Honorable avec les félicitations; title : "Self-organisation on crystalline surfaces and its application to the growth of nanostructures"
- 1998 **D.E.A. (Master degree)** in Solid State Physics

## ADMINISTRATIVE TASKS

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- Expert for recruitment in different French universities
- Member of the scientific council of the MPQ laboratory and the Physics department
- Supervisor of the 'Magistère de Physique' (L3-M1-M2 in Fundamental Physics)
- Supervisor of the STM team

## RESEARCH ACTIVITIES

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Self-organisation of crystalline surfaces – Nucleation and growth – Magnetic properties of nanostructured systems– Self-Assembled Monolayers of molecules

## TEACHING

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**Licence** : Optics – Mecanics – Electronics – Experimental physics

**Master** : Transport phenomena – Nanomaterials – Projects in nanosciences

## SCIENTIFIC PRODUCTION

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**Author of 57 papers, co-supervisor of 4 PhD, 5 selected publications:**

1. "Electron Confinement in Surface States on a Stepped Gold Surface Revealed by Angle-Resolved Photoemission". A. Mugarza, A. Mascaraque, V. Pérez-Dieste, V. Repain, S. Rousset, F.J. Garcia de Abajo and J.E. Ortega, **Physical Review Letters**, 87, 107601 (2001).
2. "Two dimensional long-range ordered growth of cobalt nanostructures on a Au(111) vicinal template". V. Repain, G. Baudot, H. Ellmer and S. Rousset, **Europhysics Letters**, 58, 730 (2002).
3. "Uniform Magnetic Properties for an Ultrahigh-Density of Noninteracting Co Nanostructures". N. Weiss, T. Cren, M. Epple, S. Rusponi, G. Baudot, S. Rohart, A. Tejada, V. Repain, S. Rousset, P. Ohresser, F. Scheurer, P. Bencok and H. Brune, **Physical Review Letters**, 95, 157204 (2005).
4. "Dominant role of the epitaxial strain in the magnetism of core-shell Co/Au self-organized nanodots". Y. Nahas, V. Repain, C. Chacon, Y. Girard, J. Lagoute, G. Rodary, J. Klein, S. Rousset, H. Bulou and C. Goyhenex, **Physical Review Letters**, 103, 067202 (2009).
5. "Spin-Wave-Assisted Thermal Reversal of Epitaxial Perpendicular Magnetic Nanodots", S. Rohart, P. Campiglio, V. Repain, Y. Nahas, C. Chacon, Y. Girard, J. Lagoute, A. Thiaville. S. Rousset, **Physical Review Letters**, 104, 137202 (2010).