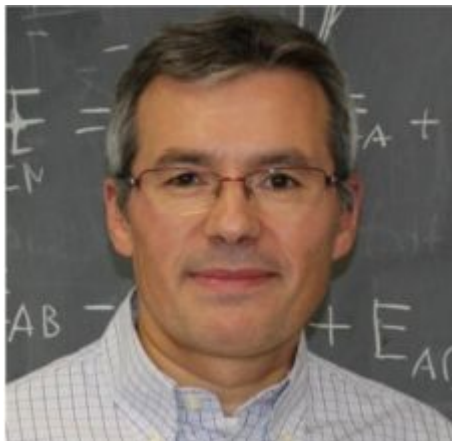


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Biographical Info

Professor of Condensed Matter Physics.

Visiting Professor, Materials Science Division, Lawrence Berkeley National Laboratory, 2012.

Visiting Professor, Graduate School of Engineering, Osaka University, 2001.

Visiting Scientist, Max-Planck Institut fur Metallforschung, Stuttgart (annual visits during 1997-1999).

HCMP Fellow & Research Associate, Cavendish Laboratory, University of Cambridge, 1993-1996.

Ph.D. (Condensed Matter Physics), Universidad Autónoma de Madrid, 1992.

Graduate in Theoretical Physics, Universidad Complutense de Madrid, 1987.

Research Interests

Theory of Scanning Tunneling (STM) and Atomic Force (AFM) Microscopes.

Adsorption, reactivity, and self-organization of molecules on surfaces.

Graphene and carbon nanostructures.

Oxide nanostructures for a hydrogen-based economy.

Structure and function of Biomolecules (proteins, DNA, PNA).

Nanomechanics: Fracture. Friction and Wear at the atomic scale.

Relevant/Recent Publications

Rubén Pérez Nanoscale Friction: Distorted by the tip, Nature Materials 13, 118-119, (News & Views), (2014). [\[URL\]](#)

H. Mönig, M. Todorović, M. Z. Baykara, T. C. Schwendemann, L. Rodrigo, E. I. Altman,

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M. Ondracek, P. Pou, V. Rozsival, C. Gonzalez, P. Jelinek and R. Perez, Forces and Currents in Carbon Nanostructures: Are We Imaging Atoms?, Physical Review Letters 106 ,176101 (2011). [\[URL\]](#)

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Y. Sugimoto, P. Pou, O. Custance, P. Jelinek, M. Abe, R. Pérez and S. Morita, Complex patterning by vertical interchange atom manipulation using atomic force microscopy, Science 322, 413-417 (2008). [\[URL\]](#)

G. Otero, G. Biddau, C. Sánchez-Sánchez, R. Caillard, M. F. López, C. Rogero, F.J. Palomares, N. Cabello, M.A. Basanta, J. Ortega, J. Mendez, A.M. Echavarren, R. Pérez, B. Gómez-Lor and J. A. Martín-Gago, Fullerenes from aromatic precursors by surface-catalysed cyclodehydrogenation, Nature 464, 865-869 (2008). [\[URL\]](#)

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