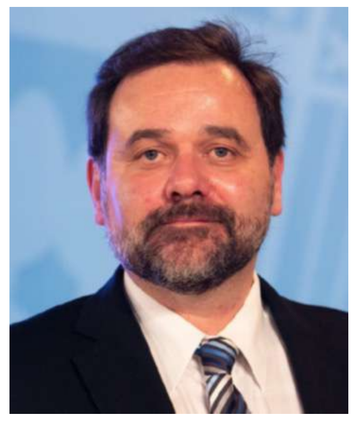
Departamento de Física de la Materia Condensada

Universidad Zaragoza

SEMINARIOS 2024



Félix Fernández Alonso

Materials Physics Center, Donostia

International Physics Center, Ikerbasque

Neither solids nor liquids per se

Emerging materials & paradigms for energy conversion & storage

A growing number of emerging classes of materials for energy conversion & storage are hard to classify (and understand) using the conceptual framework that we all learn as physicists or chemists when introduced to the world of condensed matter. Examples of the above include the metal intercalates that we all have in our mobile phones; phase-change materials for thermal-energy storage; barocalorics for solid-state refrigeration; or organic-inorganic perovskites for photovoltaics & photonics. Common to all of them is the emergence of dynamical disorder at the atomic and molecular levels from the outset, more-often-than-not responsible for their function, performance, and realm of applicability. With a broad audience in mind, this talk will provide an overview of our current research efforts in this area of materials research, using a combination of experimental probes (most notably neutron-based) along with computational materials modelling.

Felix is Ikerbasque Professor at the Materials Physics Center and DIPC Associate at the neighboring Donostia International Physics Center. His research is focused on the exploration of new materials for energy and sustainability, with an emphasis on the development and use of state-of-the-art radiation-scattering techniques in conjunction with computational materials modelling. He is Honorary Professor at University College London, Fellow of the Royal Society of Chemistry, Fellow of the Chartered Management Institute, Member of the Statistical Mechanics & Thermodynamics Group Committee of the Royal Society of Chemistry, and Member of the Board of Directors of the Spanish Neutron Scattering Society. Prior to his current role, he was Group Leader and Professor of Physics at the Rutherford Appleton Laboratory and University College London, Scientific Director of the Center for Molecular Structure & Dynamics of the UK Science & Technology Facilities Council, and President of the UK Neutron Scattering Society. He holds a PhD in Chemistry from Stanford University (USA) and undergraduate degrees in Chemistry and Mathematics from Hamilton College (USA) and Imperial College London (UK).

Con la colaboración de:

Facultad de Ciencias Universidad Zaragoza

INMA

CSIC Consejo Superior de Investigaciones Científicas

Universidad Zaragoza 1542

01 Marzo (viernes)

HORA: 12:30

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