Post-doctoral position in Ultrafast Diffraction Imaging at ICFO

Project description: We have been developing mid-IR driven electron recollision in combination with kinematic coincidence detection (COLTRIMS/reaction microscope) to achieve combined picometer spatial and attosecond temporal resolution imaging of molecular structures. The aim of our experimental program is the investigation of electron-nuclear dynamics, conical intersections, and the pathways which drive isomerization. This research encompasses the quantum dynamics of multi-body correlations, atomic and molecular physics, recollision science, molecular alignment and electron diffraction techniques, and it is carried out in the framework of the ERC Advanced Grant TRANSFORMER in connection with experimental and theoretical partners. The success of this project will have significance in fields of attoscience, molecular imaging, and atomic/molecular physics. For literature, see Nature Commun. 6, 7262 (2015), Phys. Rev. X 5, 021034 (2015), Nature Commun. 7, 11922 (2016), Science 354, 308 (2016), PNAS 10, 1817465116 (2019), Struct. Dyn. 8, 014301 (2021)

Environment: The research is conducted in the Attoscience and Ultrafast Optics group of Prof. Biegert at ICFO – The Institute of Photonic Sciences. We are an international team of highly motivated scientists with state-of-the art laboratory and unique equipment. Our experimental environment includes several cutting-edge few-cycle intense-light sources, with special emphasis on wavelengths in the mid-IR and with CEP stability, attosecond X-ray beamline and 3D coincidence imaging. The group enjoys numerous international collaborations and we are embedded in several national, European, and international networks. We offer you a very vibrant, stimulating and international work environment in a competitive and exciting area of research.

Position: We offer a postdoctoral position to a scientist who wishes to enhance his/her scientific career in the field of Ultrafast Structural Dynamics and Attosecond Science. The salary is commensurate with experience and the position is renewable. The successful candidate will conduct experimental research in a team; hence including project leadership.
Qualification: The candidate should have experience with photoelectron spectroscopy and/or diffraction imaging and/or electron/ion spectroscopy or ultrafast x-ray techniques. Experience with molecular beam methods and femtosecond lasers are beneficial. We expect fluency in English (written and spoken), writing skills, diligent work ethics, interest in physics problem solving and the ability to work in a team. The candidate must hold a Ph.D. degree.

Application procedure: Suitable candidates are requested to submit:
• A presentation letter with a declaration of interest,
• A Curriculum Vitae, including full address, a contact phone number and e-mail address,
• Name and address of, at least, one potential referee.

Candidates should be willing to be contacted by phone during the selection process.

Candidates should contact jens.biegert@icfo.eu regarding the position.

Web: atto.icfo.eu / www.icfo.eu

With best regards,

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