



We are excited to announce **MATRIX-CM Call for Applications**.

MATRIX-CM (Matter in Action with ULTRafast Optical and X-ray Lasers – Comunidad de Madrid) is an innovative initiative, under the Technologies 2024 Programme of Community of Madrid (Spain), bringing together 7 research groups in different Madrid region institutions (Universidad Complutense de Madrid-UCM, Universidad Autónoma de Madrid-UAM, Consejo Superior de Investigaciones Científicas-CSIC, and IMDEA Nanoscience) around **ultrafast science and technology to study matter in action**. As part of this programme, up to **7 PhD positions** are offered starting in summer-autumn 2025. This presents a unique opportunity to engage in cutting-edge research on ultrafast lasers and their applications with a strong international component.

The PhD positions offered are:

- **Tracking structural dynamics in condensed phase matter systems using advanced X-ray laser techniques.** IMDEA Nanoscience. Contact: Wojciech Gawelda (wojciech.gawelda@imdea.org).
- **Studying electron-vibration coupling effects in photosystems.** IMDEA Nanoscience. Contact: Sara H. Mejías (sara.hernandez@imdea.org).
- **High-performance computing for attochemistry: electron dynamics induced by ultrashort pulses.** UAM. Contact: Alicia Palacios (alicia.palacios@uam.es).
- **Ultrafast optical and X-ray spectroscopy of metal-metal bonded complexes.** UAM. Contact: María E. Corrales (maria.corrales@uam.es).
- **Ultrafast gas-phase photodynamics in polyatomic molecules using femtosecond and attosecond pulses.** UCM. Contact: Sonia Marggi Poullain (smarggi@ucm.es).
- **Ultrafast laser-induced phase transformation dynamics in semiconductors and nanomaterials.** CSIC. Contact: Jan Siegel (j.siegel@csic.es).
- **Tunable vacuum ultraviolet/extreme ultraviolet radiation for molecular and condensed matter studies.** CSIC. Contact: Esther Rebollar (e.rebollar@csic.es).

All the details about the PhD positions offered can be found in the following link:

<https://drive.google.com/drive/folders/156h4AeCKDQ-7C5ACrYRAe1Zg2BWGphxG?usp=sharing>

Thank you in advance for your support in promoting this exciting opportunity!

On behalf of the MATRIX-CM consortium,

Luis Bañares

Coordinator MATRIX-CM