OPTEXC/MultiTrans
Invited Speaker Series

Probing Coherent Exciton Dynamics and Charge Generation in Semiconductor Quantum Dots with Two-Dimensional Electronic Spectroscopy***

Two-dimensional electronic spectroscopy (2DES) has proven particularly informative for disclosing ultrafast exciton dynamics and coherent interactions in semiconductor quantum dots (QDs), both in solution and in thin films. Studies of isolated QDs and solid-state assemblies uncovered coherent states and inter-dot coupling, while photocurrent-detected 2DES links these dynamics to charge generation in QDs photocells. These insights clarify energy flow in nanoscale materials and inform their development for energy applications.

Date: Thursday, 26th November 2026

Time: 1230 | Room: H11 (NWI)



Prof. Dr. Elisabetta Collini
Università di Padova
Italy

OPTEXC/MultiTrans
Tutorial Series

Two-dimensional Electronic Spectroscopy of Energy-related Materials

Date: Wednesday, 25th November 2026

Time: 1600

Room: S35 (NWI)



Prof. Dr. Elisabetta Collini
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