



**UNIMORE**  
UNIVERSITÀ DEGLI STUDI DI  
MODENA E REGGIO EMILIA

*PhD Course*

# ***Models and Methods for Material and Environmental Sciences***

**PRESENTS**

## **Advanced spectroscopic methods for materials science**

***Speaker* Prof. Michael T. Ruggiero**  
**University of Rochester (USA)**

Terahertz time-domain spectroscopy has emerged as a powerful tool for probing solid-state materials, thanks to its sensitivity to bulk molecular packing and weak intermolecular interactions. It is particularly effective in studying molecular crystals, their structures, phase transitions, and functions. These two seminars will give you a general introduction to low-frequency vibrational spectroscopy and its use for the characterization of functional materials.

**23<sup>rd</sup> June 2025**  
**Room U0.1, MO51**

**Time 10:00-12:00 & 14:30-16:30**

Please register at <https://forms.gle/EWmi7G8jmWeWYSiU6>

**Host Prof. Luca Catalano**    [luca.catalano@unimore.it](mailto:luca.catalano@unimore.it)