

# Seminar

Friday, December 9, 2022, 13.00 h, PHY 5.0.20

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### *Ultrafast carrier dynamics in metal-halide perovskites by THz spectroscopy*

Solution-processed metal-halide perovskites have gained tremendous research attention in recent years owing to their superior photovoltaic performance with a certified solar-to-electricity power conversion efficiency over 25%. Yet, the photophysics governing the ultrafast carrier dynamics and microscopic charge transport remains to be explored. In this talk, I will give a brief overview of our recent works in polaron transport and many-polaron interactions in black phase CsPbI<sub>3</sub>, hot carrier transport in double perovskite Cs<sub>2</sub>AgBiBr<sub>6</sub> and charge transfer in perovskite/graphene heterostructures, employing ultrafast THz spectroscopy.