



18th October 2018 - 10:00 h

CFEL – Building 99, seminar room I+II (ground floor)

Franck Lepine

Institut Lumière matière, Lyon, France

Attosecond and femtosecond dynamics induced by XUV excitation in Carbon-based molecules

One of the major breakthrough in modern ultrafast science has been the development of XUV light sources delivering ultrashort pulses with abilities to reach attosecond precision in pump-probe experiments. Our group at Light-Matter Institut (CNRS & Lyon Univ.) investigates how these new approaches can be used to reveal new phenomenon in polyatomic molecules due to many-body quantum effects where electron correlation and non-adiabatic dynamics have a strong influence. The group has pioneered the use of ultrashort XUV pulses in the context of molecular astrophysics and the measurements of attosecond delays in large molecules. In this seminar, I will present results obtained on large Polycyclic Aromatic Hydrocarbons and Fullerenes, as well as our current investigations and perspectives in this field.

