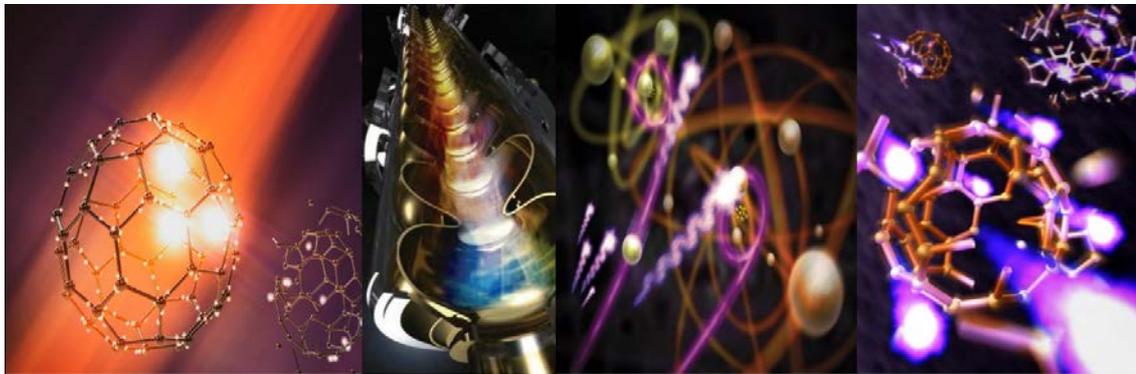


**2<sup>ème</sup> SEMINAIRE DE LA CHAIRE BLAISE PASCAL****Nora BERRAH***Chaire d'Excellence Internationale Blaise Pascal, Région Ile-de-France**LIDYL, CEA, Université Paris-Saclay, France**University of Connecticut (UConn), Physics department, Storrs, CT***Le Mercredi 8 Juin 2022 à 11h00**  
**Amphi Galilée, CEA-Orme des Merisiers, Bât.713****Publishing Research Results in Peer Reviewed Journals**

The knowledge of the earliest time dynamics in molecular photophysics and photochemistry is critical because their role is to harness the energy from photons, initiating electronic and nuclear motion, which is fundamental in many areas of science. Our aim is to understand the coupled electronic and nuclear dynamics induced by the absorption of photons by molecules, which leads first to attosecond electron excitation within the molecules, followed by nuclear motion in the femtosecond range. This eventually results in the breaking and making of chemical bonds on the femtosecond-to-picosecond timescale. Table-top lasers have advanced fundamental science tremendously and the past twenty years have seen the exciting birth of complementary light sources, the free electron lasers (FELs). The XUV and X-ray FELs around the world are leading to an explosion of new science, in the femtosecond and very recently in the attosecond regime.

I will present several seminars, aimed to the students, starting with a general talk that will introduce the general concepts of FELs. I will also report on experiments that exploit the intensity and the pulse duration of FELs. Recent work include time-resolved experiments that use pump-probe technique to watch, in real time, the response of molecules to intense X-rays as well as to examine the role of physical and chemical effects and how they lead to the timing of bond breaking and bond forming. The ultimate goal is to “make molecular movies”. These scientific seminars will alternate with tutoring seminars on Career Building, on Journal Publishing, on Leadership and Career launch and Development.

**Seminar 1: Thursday May 19<sup>th</sup>, 2022 at 11 am. *Introduction to Free Electron Lasers (FELs).***

**Seminar 2: Wednesday June 8<sup>th</sup>, 2022 at 11 am. *Publishing Research Results in Peer Reviewed Journals.***

**Seminar 3: Tuesday July 5<sup>th</sup>, 2022 at 11 am. *Non-Linear Physics with FELs.***

**Seminar 4: Tuesday July 19<sup>th</sup>, 2022 at 11 am. *Career Launch and Development.***

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**Participer au séminaire par Zoom :**

<https://cnrs.zoom.us/j/97386913183?pwd=VG1PUINYzk5yRGIIN2VLSEdzUE5lUT09>

**ID de réunion : 973 8691 3183**

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