



## Séminaire du LCPMR

# Multilayer optics for applications in the EUV, x-ray and gamma-ray ranges

**Regina SOUFLI**

*Lawrence Livermore National Laboratory*

*Livermore, California, USA*

This talk will discuss the development of multilayer mirrors for applications such as solar physics and astrophysics, laser sources, plasma diagnostics, radiation detection and semiconductor photolithography. The mirrors consist of reflective multilayer interference coatings composed of alternating nanometer-scale layers of different materials, deposited on superpolished substrates. To achieve high reflective performance, the materials employed in these coatings need to have good optical contrast, very smooth interfaces and long lifetime stability. They also need to be deposited on large-area curved substrates with sub-nanometer thickness accuracy. Experimental results on the characterization and implementation of multilayer mirrors in actual optical systems will be discussed.

**Mardi 10 juin 2014 à 15h30**

**Amphithéâtre Jean Perrin**

**Laboratoire de Chimie Physique – Matière et Rayonnement**