Contribution ID: **5** Type: **Keynote Talk**

TUKA01: Shining a light on synchrotron light

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Synchrotron radiation light is now available in many centers throughout the world and it is used by chemists, physicists, biologists, geologists and other scientists to study samples as diverse as crystals, single molecules, viruses, old manuscripts, nanoparticles, cement, thin films or glasses.

In this keynote, we will present in a didactic way the essential properties of synchrotron light, and the basic physical phenomena underlying the interaction between synchrotron light and matter: scattering and absorption.

The main classes of techniques that beamlines offer to the users community, namely diffusion-diffraction, spectroscopy and imaging, will then be presented.

A special emphasis will be given to the huge increase of brilliance, and thus of coherence, that the new generation of synchrotrons have pledged to provide.

Presenter: Dr RAVY, Sylvain (Laboratory for Solid State Physics LPS ORSAY)