



Contribution ID: 1

Type: **not specified**

Synchrotron Radiation

Tuesday, 27 October 2015 09:00 (2 hours)

Synchrotron radiation is emitted by charged high energy particles, when submitted to transversal acceleration. In particle accelerators it influences beam dynamics, provides an excellent tool for beam diagnostics and specially is a powerful instrument for investigating matter properties in synchrotron light sources. It extends from infrared to X-rays of energies above 100 keV. The excellent energy definition, together with the high fluxes, the properties of spatial and temporal coherence, the variable polarization, opens the utilization of the photon sources to multiple applications. Among the users of the synchrotron light infrastructures stand communities of life science, pharmacology, materials science, cultural heritage, environment, production and conservation of energy.

A constant evolution of the photon sources, of the detection techniques and of the analysis of the light interaction with materials, puts this area at the frontier of knowledge.

Basic features of the radiation will be illustrated, together with a description of the synchrotron light source applications and future trends.

Primary author: Dr BISCARI, Caterina (ALBA-CELLS)

Presenter: Dr BISCARI, Caterina (ALBA-CELLS)