

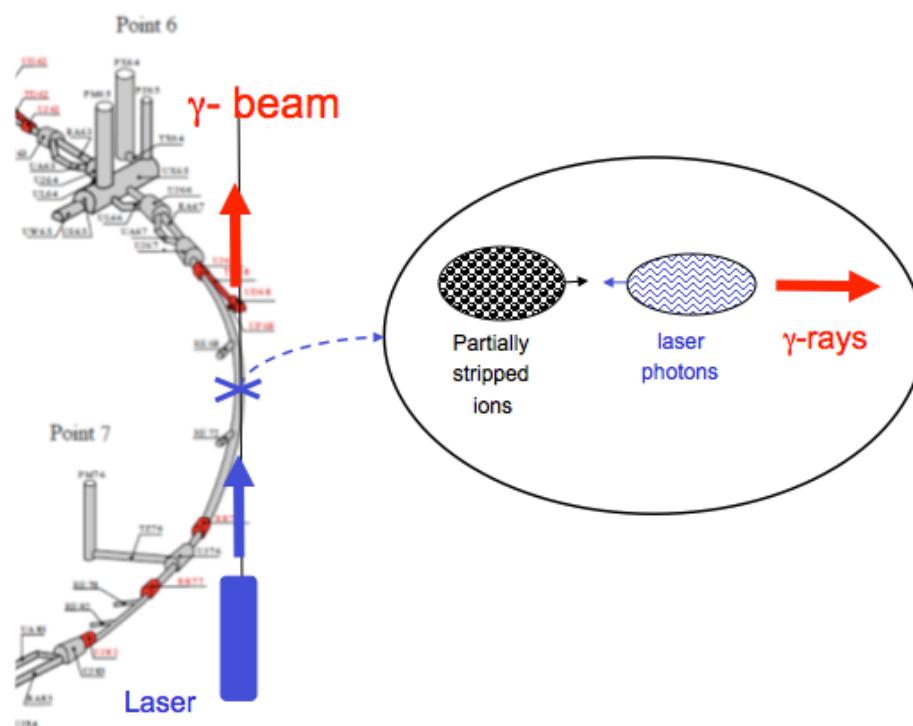


## The HIGS proposal and its highlights.

**Mieczyslaw Witold Krasny (LPNHE Paris)**

**Tuesday, 26 May 2015, 16:45 h, Auditorium**

The Duke University facility, delivering  $O(10^9)$  photons per second is the most powerful gamma-ray source ever built. The aim of the High Intensity Gamma Source (HIGS) proposal, presented in this talk, is to extend this intensity frontier at CERN by, at least, 6-7 orders of magnitude, for tunable-energy, quasi-monochromatic gamma-rays, produced within the energy range of 1-400 MeV. Gamma-rays, in this energy domain, could be used to produce electron, positron, muon, neutron and radioactive beams of unprecedented intensity, opening numerous research domains in particle, nuclear and applied physics. Its selected highlights, discussed in this talk include: a new concept of the TeV-range lepton collider, fundamental QED measurements, dark matter searches, studies of basic symmetries of the Universe and studies of the QCD-confinement. A couple of examples of industrial and medical applications will be mentioned.



Coffee, tea and cookies will be served at 16:30h.

After the seminar there is a chance for private discussions with the speaker over wine and pretzels.