



FZU

Institute of Physics
of the Czech
Academy of Sciences

I n v i t a t i o n

to the seminar of Division of Elementary Particle Physics
of the Institute of Physics of the Czech Academy of Sciences

Dr. Oldřich Kepka

Institute of Physics of the Czech Academy of Sciences

The LHC as a photon-photon collider with the ATLAS detector

Abstract: The LHC proton and lead high-energy beams are sources of intense light. The LHC machine effectively serves as a photon-photon collider producing interesting events with very little activity from the interacting beam particles which can be used to test the electroweak sector of the Standard Model. In the seminar, techniques to select these events will be discussed and new ATLAS results involving photon-photon fusion will be presented: the observation of photo-produced weak-boson pair-production, cross-section measurement of lepton pair production with proton tagging in the ATLAS Forward Proton Spectrometer, and measurements of muon pair production and light-by-light scattering in ultra-peripheral lead-lead collisions.

Seminar will take place online only on **Thursday, November 5, 2020 at 2PM** via **ZOOM video conference** system, for more information, please see: <https://indico.fzu.cz/event/10/>

R. Lysák

J. Hejbal