



Contribution ID: 113

Type: **Talk**

Fundamental physics with extreme BL Lacs

Friday, 25 January 2019 09:30 (40 minutes)

Extreme BL Lacs provide intense and hard beams of very-high energy photons that can be exploited to explore physical processes beyond those foreseen by the present standard model (SM) of particle physics. In particular, the potential extension of the spectrum of extreme BL Lacs well above the ~ 10 TeV, limit achieved by the current instruments, will provide the opportunity to test effects induced by the breaking of the Lorentz Invariance expected in several implementations of quantum gravity and to probe the existence of axion-like particles —small mass, neutral pseudo-scalar particles predicted by extensions of the SM. I will review the expected effects, the current limits and the perspective for the CTA.

Primary author: Dr TAVECCHIO, Fabrizio (INAF-)AB)

Presenter: Dr TAVECCHIO, Fabrizio (INAF-)AB)

Session Classification: Fundamental physics

Track Classification: Main track