Contribution ID: **764** Type: **not specified**

Dark Matter from Lorentz Invariance and the LHC

Friday 17 July 2009 14:50 (20 minutes)

We discuss the unique 6 dimensional geometry where a stable Dark Matter candidate arises without imposing any extra discrete symmetry. The KK parity is part of the residual Lorentz symmetry of the compact space due to the absence of fixed points. We will discuss the spectrum of the Standard Model on this 6D background and identify the candidate as a massive scalar photon. Finally, we will briefly sketch the phenomenology of this scenario, focusing on the peculiarities with respect to other models and possible extensions.

Primary author: CACCIAPAGLIA, Giacomo (IPN Lyon)

Co-authors: DEANDREA, Aldo (IPN Lyon); LLODRA-PEREZ, Jeremie (IPN Lyon)

Presenter: CACCIAPAGLIA, Giacomo (IPN Lyon)

Session Classification: III. Higgs and New Physics

Track Classification: Higgs and New Physics