



ARNOLD SOMMERFELD
CENTER FOR THEORETICAL PHYSICS



Sommerfeld Theory Colloquium

Wednesday, 10th February 2021

at 16.15 h

Prof. Alexey Boyarsky
(Leiden University)

Particle physics: Plan B

Particle physics is at the crossroads. The last particle firmly predicted by the Standard Model (SM) has been discovered. In recent years many of its interactions with other known particles have been experimentally studied, again confirming the SM's predictions in large detail. However, despite this impressive success, we are sure that the SM is incomplete. The Standard Model can not explain dark matter, neutrino masses, and matter-antimatter asymmetry of the Universe, and we do not know what particles are responsible for these phenomena — their masses, interaction strength, life time etc. I will discuss how the synergy with Cosmology and Astrophysics can help to limit these uncertainties and discuss several concrete examples which can drastically change the situation in particle physics in the next 5-7 years.

For ZOOM access information, please contact Michael Haack: michael.haack@lmu.de

Prof. Gia Dvali