

LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS (LEPP) Theory Seminar

Po-Jen Wang NYU

Thermal Relic Targets with Exponentially Small Couplings



If dark matter was produced in the early Universe by the decoupling of its annihilations into known particles, there is a sharp experimental target for the size of its coupling. I will introduce a new type of dark matter that was produced by inelastic scattering against a lighter particle from the thermal bath, and its coupling can be exponentially smaller than the coupling required for its production from annihilations. As an application, I will demonstrate that dark matter produced by inelastic scattering against electrons provides new thermal relic targets for direct detection and fixed target experiments.

Wednesday, Oct. 23, 2019 2:00pm 401 Physical Sciences Building

LEPP, the Cornell University Laboratory for Elementary-Particle Physics, and CHESS resources have merged and a new lab, (CLASSE), has formed. LEPP's primary source of support is the National Science Foundation. Visit us at www.lepp.cornell.edu