



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