



LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS (LEPP)

Joint Experimental and Theory Seminar in Particle Physics and Cosmology:



Tomer Volansky
Tel Aviv

New Directions in the Search for Dark Matter

The existence of dark matter has been well established with overwhelming evidence, but its particle identity is still unknown. For more than three decades, significant theoretical and experimental efforts have been directed towards the search for a Weakly Interacting Massive Particle (WIMP), often overlooking other possibilities. The lack of an unambiguous positive WIMP signal, at both indirect- and direct-detection experiments and at the LHC, stresses the need to expand dark matter research into additional theoretical scenarios and, more importantly, to develop new experimental capabilities that go beyond the limitations of WIMP detection. In this talk I will shortly review the current status of the field and discuss new theoretical ideas and experimental avenues for searching for light dark matter in the MeV to GeV mass range, focusing on direct detection experiments.

Friday, February 9, 2018

1:00pm

401 Physical Sciences Bldg.