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Gamma-ray signals from weak scale SUSY dark matter
TAKAHIRO YAMAMOTO, PEARL SANDICK, FEI TENG, Univ of Utah, JASON KUMAR, Univ of Hawaii — It is widely thought that recent results for supersymmetry and dark matter searches favor TeV-scale SUSY Standard Model. In this talk, however, I will argue that there still exists a wide range of viable parameter space of weak scale MSSM. This model predicts new bulk region in which relatively light sleptons with the large chiral mixing and CP -violating phase enhance the dark matter annihilation into lepton pair, and is severely tested by the precise measurements of magnetic and electric dipole moment of leptons. I will conclude my talk by presenting the possible signatures from such dark matter particles at the present epoch and exploring the detectability of the signals using the currently operating and next generation satellite gamma-ray telescopes.

Takahiro Yamamoto
Univ of Utah

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