DEPARTMENT OF PHYSICS

High Energy Physics Seminar

Monday, February 18, 2019 @ 3:30 PM Room 4138 Physics Research Building

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Non-Universal Gaugino Masses in MSSM and NMSSM

I will discuss the supersymmetric extensions of the Standard Model with a specific pattern of gaugino masses at the unification scale. A mass spectrum with the light higgsino and top squark is realized where the wino mass is relatively heavier than the gluino mass. The light higgsino relaxes the fine-tuning to explain the electroweak scale in the MSSM, while we showed that the gaugino mass pattern is required to realize the electroweak scale in the NMSSM. I will also discuss about the LHC physics of the top squark and the DM physics of the higgsino in our scenario.

