

WEDNESDAY

NOVEMBER 18

4:00 P.M.

RM 118 NSH

Refreshments
in Rm 202 NSH
@ 3:30 pm

Galaxy Collisions in Our Local Neighborhood

Prof. Gurtina Besla

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Our understanding of the dynamics of our Local Group of galaxies has changed dramatically over the past few years owing to significant advancements in astrometry and our theoretical understanding of galaxy structure. With the first direct 3D velocity measurement of M31, its future collision with the Milky Way is the most imminent major cosmic event affecting our solar system that can be predicted with some certainty. New velocity measurements of the Milky Way's largest satellite galaxies, the Large and Small Magellanic Clouds (LMC and SMC), have overturned the canonical picture in which the Clouds have made multiple orbits about the Milky Way, suggesting instead that they may be recent interlopers to our system. Models of the LMC/SMC system also suggests that they have recently collided in a dramatic event that formed a star forming bridge of gas connecting these two dwarf galaxies. These studies illustrate that we need only look to our local neighborhood to find galaxies in the midst of violent encounters.