

SUBJECT TO CHANGE! Be sure to check back often.

Friday January 8

3:00 PM

AT 305

Dr. Ohad Shemmer

University of North Texas

Multiwavelength Insights into the Nature of Weak Emission-Line Quasars at High Redshift

The Sloan Digital Sky Survey has recently discovered ~60 quasars at $z=2.7-5.9$ with weak or undetectable high-ionization emission lines in their UV spectra (WLQs). I will present multiwavelength spectroscopic observations that provided insights into the nature of these remarkable sources. I will show that WLQs are unlikely to be dust-obscured quasars, broad-absorption line quasars, or high-digf

AT 101

Dr. Parandis Khavari

University of Toronto

Regge Calculus as a Numerical Approach To General Relativity

Regge Calculus is a finite element approach towards General Relativity. This method relies on approximating n-dimensional manifolds with n-dimensional simplices, which are higher dimensional replicas of triangles and tetrahedra. Once an n-dimensional manifold is 'skeletonised' by n-dimensional simplices, the geometry becomes flat everywhere except where two or more simplices meet.

One important question that arises in skeletonising a manifo

that we can characterize the onset of instability and fragmentation as a function of the infall rate. I describe the role of disks in the formation of binary and multiple systems, and the subsequent evolution of their orbital parameters. Finally, I discuss the implications of disk instability for the upper mass limit of stars, and for the formation of massive, wide-orbit planets.