Colloquia Abstracts

Friday September 12

3:00 PM

SB 265

Dr. Dae-Sik Moon

University of Toronto

Infrared Observations and Instrumentation for Studying Core-collapse Supernova Explosions and New Hard X-ray Sources

Advances in modern astronomy are heavily dependent on the developments of new instruments which can sometimes dramatically change our understanding of the Universe. I will introduce new instrumentation and experimental efforts at the University of Toronto which are optimized for the developments of new near-infrared instruments for world's largest telescopes of the present and future. I will then connect the capabilities of the new

considered: gravitational torques associated with gravitational instability and spiral structure, and viscous torques associated with the magneto-rotational instability. I find that circumstellar disks have similar mean masses (<M_d> = 0.11 - 0.13 Msun) in the Class 0/I phases but a factor of 2 lower mean mass in the Class II phase. The obtained mean disk masses are _larger_ than those recently derived by Andrews & Williams and Brown et al. The difference is especially large for Class II disks, for which Andrews and Williams report median masses of order 3*10^{-3} Msun. I also present relations between the time-averaged disk and stellar masses for Class 0/I/II objects.

Friday October 17

3:00 PM

SB 265

Dr. Niel Brandt

Pennsylvania State University

Recent Results from the Deepest X-ray Surveys: Adventuring Through the Distant X-ray Universe

The deepest X-ray surveys, such as the Chandra Deep Fields, continue to provide fascinating insights about active galactic nuclei (AGNs), starburst & normal galaxies, groups & cl

complicated by the effects of baryons. I will try to provide some counterweight to this traditional view by discussing

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Dr. David Hanna
McGill University

Recent Results from the VERIT AS Gamma-ray Observatory

At energies greater than about 100 GeV, gamma-ray astronomy can be carried out using ground-based telescopes which detect the Cherenkov light from air-showers caused by gamma rays impacting the upper atmosphere. A new generation of such detectors has been constructed in recent years; its newest member is the VERITAS detector in southern Arizona. VERITAS achieved 'first light' in the spring of 2007 and is currently the most sensitive such instrument viewing the northern skies. In this colloquium I will outline the scientific motivation for very-high-energy gamma-ray astronomy, describe the techniques involved, and report on the latest results from VERITAS.