

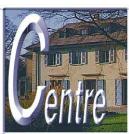


ASTROPHYSICS SEMINAR









Thursday, December 4, 2003 at 11:00

Gamma-ray and X-ray observations of YSOs in nearby star-forming regions

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Abstract. With the launch of the Chandra X-ray Observatory, the X-ray studies of young stellar objects (YSOs) and star formation has shown a rapid progress, with its unprecedented spatial resolution and hard X-ray sensitivity. I will present new insights that we obtained in the last 3 years from our two deep-exposure Chandra studies of Orion Molecular Clouds 2 and 3 and the rho Ophiuchi dark cloud, including X-ray detections from protostars and brown dwarfs. X-ray diagnosis on forming stars is also discussed. Although emission above 10 keV is routinely observed from the Sun, it has not been yet detected from any objects in star-forming clouds. I also discuss the detectability of the gamma-ray emission from these youngest objects and what we can learn from it.