



Western University
Department of Physics and Astronomy

PHYSICS & ASTRONOMY COLLOQUIUM

Date: Thursday, 11 February 2021

Time: 1:30 p.m.

via Zoom: <https://westernuniversity.zoom.us/j/94989627059?pwd=NTRubWUva1lpMU5yaS9xRnBkZHpDdz09>

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“Eruptive Phenomena During Star Formation”

ABSTRACT

The formation of low mass stars is a highly complex process which involves time-dependent accretion through their circumstellar disks. This is most evident in the observed variable young stars which undergo sudden and powerful eruptions known as FUor and EXor-type events. Although such outbursts have been known for almost a century, the triggers and mechanisms behind them still remain uncertain. In this talk, I will review the episodic accretion occurring during star formation from a theoretical point of view. I will discuss some of the leading models of outbursts and how they fit with the observations. I will also present some results from our latest global numerical hydrodynamic simulations of protoplanetary disks and how they shed light on some of the key aspects of this phenomenon.

Host: Prof. S. Basu