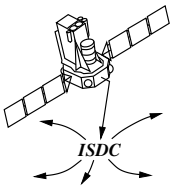

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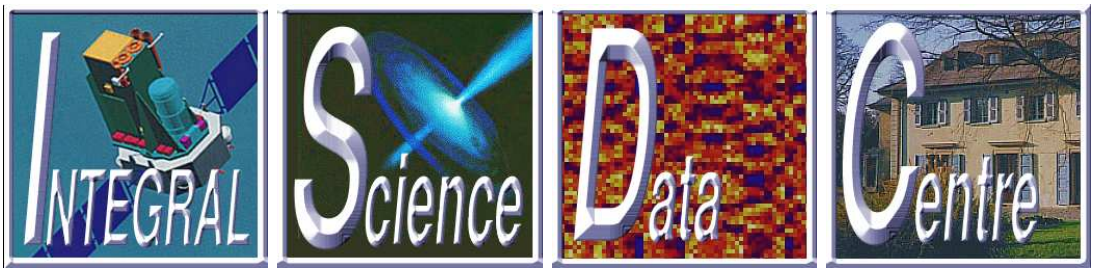

Wednesday, 27 April 2005 at 11:00

Accretion-Ejection Instability, QPOs and a Magnetic Flood model for the variability of microquasars

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Abstract. The Accretion-Ejection Instability occurs in magnetized accretion disks, in the configuration used for MHD models of jets. We have shown that it is a good candidate to explain the low-frequency Quasi-Periodic Oscillation (QPO) of microquasars. I will present the physics of this instability, which produces a spiral wave and a Rossby vortex in the inner region of the disk. I will then show how, by comparing the physics of the instability and the observed properties of GRS 1915+105 during its 30 minutes cycles, one can elaborate a scenario where these cycles, and more genrally the variability of this source, could be explained by the cycling of poloidal magnetic flux in the disk. If time permits, I will also briefly discuss a possible mechanism for the high-frequency QPO of microquasar.

Additional Information

The seminars are given in the ISDC "Pavillon" building
Address: INTEGRAL Science Data Centre, ch. d'Écogia 16, CH-1290 Versoix
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