



## SEMINAIRE du Service d'Astrophysique

### AGN X-RAY VARIABILITY AND ITS CORRELATION TO OTHER WAVELENGTHS: THE CASE OF THE QUASAR 3C 273

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**Mercredi 05 novembre 2008**

**14h30**

Variability at all observed wavelengths is a distinctive characteristic of AGN. The properties of the variability are different along the electromagnetic spectrum and their analysis can provide important information about the structure, the physics and the dynamics of the different radiating regions. The properties of X-ray variability below 10-20 keV have been widely investigated, in particular since the launch of RXTE, whereas less numerous studies have been carried out in the hardest X-rays. 3C 273 is the brightest quasar in the sky and among the most extensively observed AGN, therefore one of the most suitable targets for a long-term, multi-frequency study. Using radio to gamma-ray data covering up to 40 years of observations, we analysed the properties of the variability across the 3C 273 spectrum and search for possible connections between the emission at different energies, focussing in particular on the X-ray emission.

I will briefly review some of the latest X-ray variability studies of AGN and present the results of our 3C 273 multi-wavelength work. Particularly valuable to understand the nature of the high-energy emission of 3C 273 will be the current observations at gamma-rays by AGILE and Fermi/GLAST and in the X-rays by upcoming missions like Simbol-X.

**Ce séminaire aura lieu au CEA Saclay – Orme des Merisiers – bâtiment 709, Salle 220.**