



Séminaire organisé par

**AIM & Le service d'Astrophysique
CEA/DSM/Irfu**



GOING ON A MONSTER HUNT: HIDDEN SUPERMASSIVE BLACK HOLES IN STAR-FORMING GALAXIES

S. JUNEAU

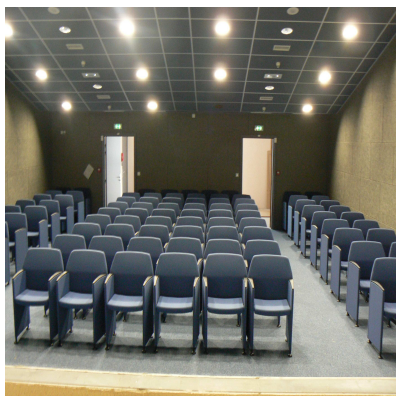
(SAp, CEA/Saclay)

Most if not all massive galaxies host a supermassive black hole in their centers, and observations point toward a tight co-evolution between these black holes and the galaxies in which they reside. Despite their very small scale, supermassive black holes and their accretion disks can convert accreted matter into energy so efficiently that they can even outshine their host galaxies and create spectacular events (radio jets and lobes reaching hundreds of kpc), earning their reputation of "monsters" at the center of galaxies. Yet these monsters can be missed by even the deepest X-ray surveys - one of the preferred methods of identification - when buried behind thick layers of intervening gas. I will present a recently-developed alternative method to find actively growing black holes including deeply buried, "hidden" cases. Using a sample of star-forming galaxies at intermediate redshifts ($0.3 < z < 1$), I will show that actively-accreting black holes are more common than what previous studies have found, and that a large fraction of black hole growth takes place in an X-ray obscured phase. This work reveals the need to change some conventional views of black hole fueling and obscuration.

21 Février 2013

ATTENTION HORAIRE INHABITUEL

14h00 Salle Galilée bât 713 C - Orme des Merisiers



Un café sera servi 15 mn avant le séminaire

Pascale Chavegrand - secrétariat Irfu/SAp 01.69.08.78.27 chavegrand@cea.fr