

Service d'Astrophysique
SÉMINAIRE

Mardi 04/11/2014, 10h00-11h00

CEA Saclay, Orme des Merisiers Bat 713, salle de séminaires Galilée

**SEARCHING FOR THE ORIGINS OF GALAXY
BIMODALITY**

VIVIENNE WILD

University of St Andrews, UK

Understanding how and why galaxies form and evolve is one of the most challenging problems in modern astrophysics. Our own galaxy, the Milky Way, shows order and structure, as do most massive galaxies in our local neighbourhood. Yet when we look to very distant galaxies they are often disordered and chaotic. Compared to the early Universe, a much higher fraction of massive galaxies in the local Universe are elliptical with little ongoing star formation. One theory for explaining at least a fraction of these transformations invokes gas-rich mergers, which trigger massive starbursts leading to bulge and supermassive black hole growth. I will start by reviewing the evidence for and against this scenario. I will then turn to the interesting case of post-starburst galaxies at $0 < z < 2$, a population of galaxies transitioning from the blue to the red sequence. How many of these recently quenched descendants of massive starbursts could be the progenitors of modern day red ellipticals, and what fraction of red ellipticals could have been formed through the gas-rich mergers required to trigger such strong starbursts?

Le cafe sera servi 10 minutes avant

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