

Séminaire organisé par

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

A SMOOTH AND FAST END OF THE DARK AGES OF THE UNIVERSE

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After a spectacular birth, with the glow of the Big Bang fading away and the first atoms of hydrogen being formed, our Universe quickly became a dull place, with the first stars and galaxies yet to appear. How long these cosmic dark ages lasted and how they came to an end are questions of outmost importance in cosmology.

Based on recent theoretical and observational results, I will show that besides the ultraviolet radiation from primordial massive stars, X-rays and relativistic jets from their black hole fossils, must have played an important role at the dawn of the Universe. In this context, contrary to the prevailing view that the early Universe had a "Swiss-cheese"-like appearance that lasted several hundred million years, the dark ages may have had a smooth and fast end. These would be good news for the future probes of the dark ages by means of the redshifted 21 cm line of atomic hydrogen.

The seminar will be held in English.

12 mai 2011

11h00 Salle Galilée bât 713 C - Orme des Merisiers



Un café sera servi 15 mn avant le séminaire