



LABORATOIRE FRANCIS PERRIN
CEA/DSM/IRAMIS/SPAM - CNRS URA 2453



SEMINAIRE SPAM / LFP

Marco CIRELLI

CERN Theory Division, PH-TH, CERN, Geneve, Switzerland

Le Vendredi 2 décembre 2011 à 11h00

Bâtiment 522 - Salle 138

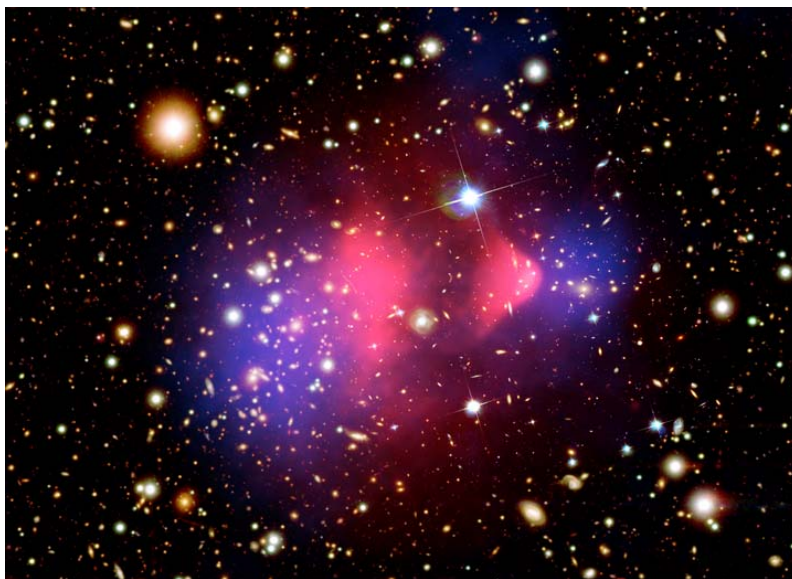
«What you see is *not* what you get: à la recherche de la partie cachée de l'Univers»

The Universe we see in a clear night sky looks astonishing: so beautiful, rich and full of structures such as stars, gas clouds, galaxies, clusters... Yet, it is a tiny fraction of what actually exists out there: around 4%, as many astronomical and cosmological observations in recent years have established. What makes up the rest? Unknown particles dubbed Dark Matter (DM) and an even more mysterious substance dubbed Dark Energy (DE).

Discovering what they really are is the challenge in front of us for the next decades. Thousands of physicists, astronomers and cosmologists spend days and nights trying to detect one of those DM particles in underground experiments shielded by entire mountains, or trying to identify their subtle traces in cosmic rays using devices on board of the Space Station or even trying to produce some of them directly in the Large Hadron Collider of CERN.

Thousands others struggle to constrain the nature of this 'fluid' DE and to make sense of the mathematical infinities that it would imply in our current theories.

This talk will be a quick journey through the physical evidences of DM and DE, their main features and the huge experimental and theoretical efforts they spur.



Formalités d'entrée :

Visiteur U.E. : Se faire connaître au moins 48 heures à l'avance pour l'établissement de votre autorisation d'entrée sur le Centre de Saclay.

Visiteur hors U.E. : Se faire connaître au moins 4 jours à l'avance pour les formalités d'entrée et se faire accompagner par un agent CEA.

Sans autorisation, vous ne pourrez entrer sur le Centre de Saclay. Tél. : 33.1.69.08.30.95 - Fax : 33. 1.69.08.76.39 - email : caroline.lebe@cea.fr ou veronique.gereczy@cea.fr

Dans TOUS LES CAS, se munir d'une pièce d'identité (passeport et carte d'identité - pas de permis de conduire)