



Séminaire exceptionnel organisé
par

CEA/DSM/Irfu/SAp/LEFMI



ATTENTION JOUR INHABITUEL

PARTICLE ACCELERATION BY SHOCKS

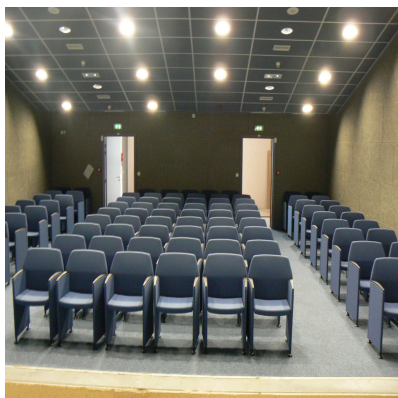
TONY BELL

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Diffusive shock acceleration is the most likely explanation for energetic particle acceleration on scales ranging from the heliosphere to clusters of galaxies and with energies ranging from MeV to EeV. Remarkable progress has been made in the past decade in both theory and observation. However, acceleration to the 'knee' in the spectrum at a few PeV is still a challenge to theory and only seems possible in very young supernova remnants. Other challenges are to explain how cosmic rays escape efficiently into the interstellar medium, why the Galactic cosmic ray spectrum is generally smooth from GeV to PeV, why the Galactic spectrum is substantially steeper than E-2, and to account for cosmic rays with energies beyond the knee.

19 juin 2013

11h00 Salle Galilée bât 713 C - Orme des Merisiers



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