SEMINARI ICC

(Institut de Ciències del Cosmos)

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"Design study of the Cherenkov Telescope Array (CTA)"

Resum: CTA stands for an initiative to build the next generation ground-based gamma-ray instrument, which is supposed to serve as an open observatory to a wide astrophysics community and which will provide the deepest ever insight into the non-thermal high-energy universe. It foresees a factor of 5-10 improvement in sensitivity in the current energy domain of about 100 GeV to some 10 TeV and an extension of the accessible energy range well below 100 GeV and to above 100 TeV. The observatory will consist of two arrays (southern and northern hemisphere) of about 100 telescopes. Currently CTA is in the design study phase. With about 2000 channels per camera a consequent effort should be done to lower the cost and improve the performances of the electronics. Mass production will be determinant for lowering the overall cost. A gain in cost and performances will be also obtained by integrating the maximum of the front-end electronics components in dedicated chip. Integrated electronics leads also to a more compact camera and an easier maintenance on site. A series of talks will review the status of CTA and specially the design study of the camera and the front end electronics involved.

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Dia: Dijous, 26 de març
Hora: 11:30
Lloc: Seminari Pere Pascual (507)

- "Introduction to the CTA" (M. Martinez, IFAE)
- "Introduction to the CTA electronics" (P. Vincent, LPNHE)
- "Introduction to NECTAr" (J-F. Glicenstein, CEA-Irfu)
- "Integrated electronics for CTA" (E. Delagnes, CEA-Irfu)

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Dia: Divendres, 27 de març
Hora: 09:30
Lloc: Sala de juntes

- "Spanish coordinated project for CTA" (M. Martinez, IFAE)
- "Front end amplifiers for Cherenkov Telescopes and RF electronics" (J. M. Miranda, UCM)

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