

## Colloqui Classe di Scienze

**Mercoledì 16 maggio 2012**  
ore 15.00

Scuola Normale Superiore  
Pisa  
(Sala Azzurra)

### **Valery Rubakov**

*Institute for Nuclear Research of the Russian Academy of Sciences, Moscow  
and Physics Department, Moscow State University*

Terrà un seminario dal titolo:

## **“Cosmology and the Large Hadron Collider”**

#### **Abstract:**

*The Large Hadron Collider aims at revealing physics at exceedingly high energies and short distances: these are energies in the TeV range and distance scales shorter than  $10^{-17}$  cm. In the cosmological context, this physics is responsible for the properties of the cosmic medium in the very early Universe at temperatures exceeding 1015 degrees Kelvin, which correspond to times less than  $10^{-10}$  seconds after the Big Bang. It is conceivable that this was the epoch of the generation of dark matter and/or matter-antimatter asymmetry of the Universe. Thus, the LHC may well shed light on these long-standing cosmological problems. The purpose of this talk is to discuss these issues, as well as other potential implications of the discoveries in particle physics for our understanding of the Universe.*

**Tutti gli interessati sono invitati a partecipare**

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