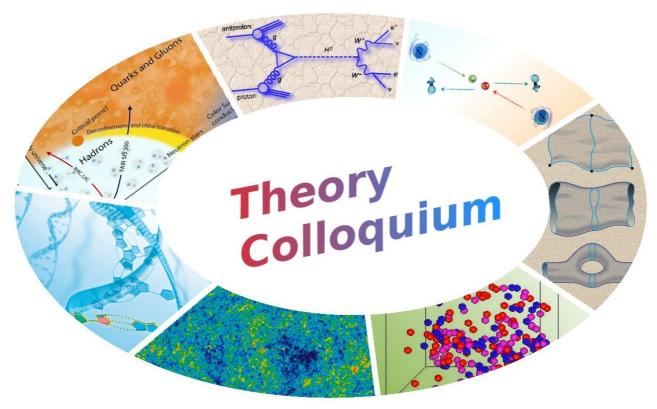


## Dipartimento di Fisica e Sezione INFN di Torino





Venerdì 27 Gennaio 2017, ore 14:30, Sala Wataghin

Kalman Szabo (University of Wuppertal and IAS-JSC)

## **Axions and lattice-QCD**

The axion is a hypothetical elementary particle, which is supposed to solve two major puzzles in fundamental physics. First they can explain, why the strong interaction (QCD) is surpisingly symmetric under exchanging left and right. Secondly axions also offer a solution to another long-standing puzzle: they are a natural candidate for particles out of which the mysterious Dark Matter is made of. In this talk I describe how theory, and in particular lattice QCD calculations on supercomputers, can help the experimental search for these particles.