


# PHYSICS **COLLOQUIA** 2015/16

Gli incontri si terranno alle **ore 14:30**  
nell'**aula A** del **DIPARTIMENTO DI FISICA**  
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Nuclear physics lies at the heart of just about everything. It holds the secrets as to why we have the elements that are essential for organic life, it provides the answer to why the proton and neutron have the mass they do and it has the potential for the creation of a substantial fraction of the human electrical energy consumption. The picture taught in Schools is one of a roughly spherical collection of nucleons, though as hinted already at the beginning of the study of nuclear physics, nearly 100 years ago, the nucleus is capable of remarkable things. This talk will explore not only the development of the modern understanding of the nucleus, but the range of collective behaviours of which the nucleus is capable. In particular it will examine the clusterization that can occur and how this gives rise to a molecular behaviour that echoes that of atomic molecules.

**01 MAR 2016**

University of Birmingham, UK | MARTIN FREER

**THE NUCLEUS IN A NUTSHELL**



UNIVERSITÀ DEGLI STUDI DI MILANO  
DOTTORATO DI RICERCA IN FISICA  
ASTROFISICA E FISICA APPLICATA