



Venerdì 9 Ottobre 2015, ore 14:30, **Aula A**
(Istituto di Fisica, Via Giuria 1)

Roberto Cingolani
(Istituto Italiano di Tecnologia)

***Translating evolution into technology:
from artificial antibodies to humanoids***

Humano-centric technologies (impacting on health care, welfare, disaster recovery, sustainable materials, life expectancy etc..) are being developed along a pathway inspired by evolution.

The natural development of intelligent and optimized living systems, from molecular level to mammals, is imitated by a blend of nanotechnology, life science, cognition and engineering which results in a number of bio-inspired technologies.

A few representative examples will be discussed, including:

- Artificial antibodies for intelligent drug delivery and ultra-high sensitive diagnostics
- Smart materials based on natural fibers
- Robotic plants (plantoids)
- Robotic animals (animaloids)
- Humanoids.

Several applications of those technologies will be briefly addressed during the presentation.