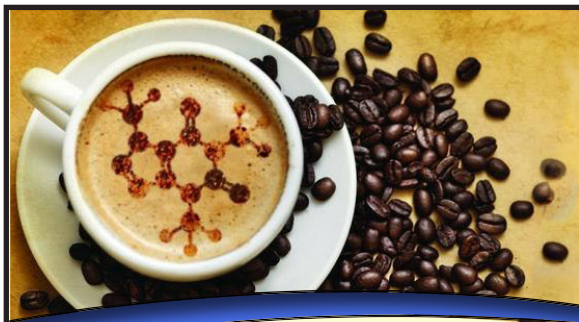

CoffeeTalk@ISOF

Making the world's tiniest machines

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The construction and operation of machines at the extreme stage of miniaturization – that is, at the molecular level – is a fascinating challenge of nanoscience and an important objective of nanotechnology. In a not-too-distant future, species of this kind could find applications in fields such as materials science, information technology, energy conversion, diagnostics, and medicine. The nanomachines of the biological world are the premier, proven examples of the feasibility and utility of nanotechnology, and constitute a sound rationale for attempting the realization of artificial molecular machines. Here I will present the strategies at the basis of the design of molecular machines and motors, and show the level of sophistication reached by these systems by describing a selected number of examples investigated in our laboratory, including nanoscale elevators, sunlight-powered molecular shuttles and supramolecular pumps.

Tuesday 9 May 2017, 14:30

ISOF 12 – Meeting Room (1st floor)

CNR Research Area

Via Gobetti 101, Bologna

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