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**“Organometallic and hybrid switchable materials
From solution to molecular devices”**

Date: Nov. 18th, 2019

Time: 16:00-18:00

Place: 2F Seminar room, iCeMS main building

ABSTRACT: Molecular switchable materials stand as some of the most attractive and powerful candidates for the development of potential applications, especially in molecular electronics. Among them, two classes of molecules have gained special interest in this field: i) the iron (II) spin crossover complexes exhibiting a diamagnetic-paramagnetic thermally and photo-induced switch between high-spin (HS) and low-spin (LS) states and ii) the organic photochromic materials, when radiated with proper wavelength. In both cases, the appealing properties cannot be readily exploited in bulk materials. Thus, this presentation will describe an original method for the fabrication of thin films of spin crossover (the so-called Hoffman's clathrates) and photochromic (based on dimethyldihydropyrene moiety) molecular materials using a multilayer sequential assembly methods. The corresponding films/monolayers can be patterned down to the nanometer scale, and still exhibit bistability: they represent thus a novel platform for a wide range of applications, from biological to display purposes.