

### Seminar

# Surface-anchored thin films of functional metal-organic/organic materials

### **Ritesh Haldar**

#### IFG-KIT, Germany

Crystalline organic or metal-organic materials (in particular: semiconductors, porous materials etc.) are obtained as nanometer to micron sized particles with heterogeneous morphology. Assembling these crystalline materials in large length scale (as a thin film) imposes severe challenge and the scope of material positioning and real-world applications such as in optical, electronic and separation technologies are severely constrained. In my presentation, I will introduce a methodology based on liquid-phase epitaxy process to realize 3D assembly of crystalline metal-organic/organic thin films at the solid-liquid interface and its scope towards optical and electronic functions with two examples.<sup>1</sup>

#### **Reference:**

1. Nat. Commun. 2018, 9, 4332; Nat. Commun. 2019, 10, 2048

## *Tuesday, Dec 10<sup>th</sup> 2019 4:00 PM (Tea/Coffee at 3:30 PM) Seminar Hall, TIFR-H*