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## **Annual Student Seminar**

### **Active drops – Spreading and wetting properties**

#### **Rayan Chatterjee**

We are studying the properties of a fluid droplet endowed with self-propelling (Active) particles. Such active drops are the building blocks of a wide variety of biological systems like cytoskeleton, bacterial suspensions etc. The self-orienting and self-propelling properties of these particles exert stresses on the surrounding fluid, thereby altering the wetting properties of the drop. Here we first explain these findings by discussing a simple yet novel model of an active drop (Joanny & Ramaswamy, 2012), illustrate some of its analytical predictions with numerical solutions of the governing equations and then discuss on our plans to extend it.

***Tuesday, Nov 24<sup>th</sup> 2015***

***4:30 PM (Tea/Coffee at 3:45 PM)***

***Seminar Hall, TCIS***