

# SCMS Seminar



## NEW MINKOWSKI TYPE FORMULAS FOR FREE BOUNDARY HYPERSURFACES IN BALLS AND APPLICATIONS

**Speaker: Chao Xia**

**Xiamen University**

### **Lecture**

**Time:** 16:30-17:30, Friday, Nov. 15, 2019

**Venue:** Room 102, Shanghai Center for Mathematical Sciences

**Abstract:** In this talk, we will present a family of new Minkowski formulas for free boundary hypersurfaces, or more generally capillary hypersurfaces, in balls.

Two applications will be given. On one hand, we use it to classify all stable capillary hypersurfaces in balls to be umbilical ones. On the other hand, we use it to define a class of locally constraint inverse type curvature flows and show a family of Alexandrov-Fenchel's inequalities for free boundary hypersurfaces in balls. The talk based on joint works with Guofang Wang and Julian Scheuer.