

**SCMS Seminar**

VOLUME POLYNOMIALS AND INEQUALITIES

Speaker: Botong Wang

University of Wisconsin – Madison

Time: Tue., May. 19th, 15:30-16:30

Venue: Room 102, SCMS

Abstract: The Alexandrov-Fenchel and Loomis-Whitney inequalities are fundamental results in the theory of volumes, though they are typically viewed as arising from different perspectives. Likewise, the Khovanskii-Teissier and reverse Khovanskii-Teissier inequalities are intersection-theoretic inequalities that are usually regarded as being of a different nature. In this talk, we introduce a family of volume inequalities that simultaneously generalizes all of the above. These inequalities are formulated using the theory of volume polynomials. This is joint work with June Huh, Mateusz Michalek, and Jian Xiao.