

# Graduate Seminar in Mathematics

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1:00p.m., HH-3017

## *Dual Orlicz-Brunn-Minkowski Theory*

### **Abstract.**

The dual Brunn-Minkowski theory, initiated by Lutwak, provides powerful tools to solve the long-standing Busemann-Petty problem in the 1990's. Among those deep results, the dual Brunn-Minkowski and dual Minkowski inequalities are the most important.

In this talk, I will discuss the newly introduced dual Orlicz-Brunn-Minkowski theory, a nontrivial extension of the dual Brunn-Minkowski theory. In particular, I will talk about the dual Orlicz-Minkowski and dual Orlicz-Brunn-Minkowski inequalities. These inequalities are based on the Orlicz-addition of star bodies, and are thought to be the heart of the dual Orlicz-Brunn-Minkowski Theory. Finally, I will mention the Orlicz intersection bodies and the Orlicz-Busemann-Petty problem (an unsolved problem).