
NING ZHANG, University of Alberta

Reconstruction of convex lattice sets from their projections

Discrete tomography is an important branch of geometric tomography, which considers problems of reconstruction of finite subsets of the integer lattice from their sections or projections. In this talk we discuss the determination of convex lattice sets from their projections posed by Gardner, Gronchi, and Zong. We provide an affirmative answer under an additional hypothesis. In addition to the volume of projections, we also study the determination from the perimeter (or surface area) of projections.