

**Alexander Koldobski** (University of Missouri-Columbia, USA)

Title: Fourier analytic tools in the solution of the Busemann-Petty problem

Abstract: We present a short proof of the affirmative part of the Busemann-Petty problem using the Funk-Hecke formula for spherical harmonics. The negative part will involve positive definite distributions and will be proved in the generalized form. The talk will include short introductions to spherical harmonics, fractional derivatives and positive definite distributions.