

NMST611 *Advanced Statistics Seminar*

Subsphericity testing in high dimensions

Joni Virta

University of Turku

November 16, 2022

15:40, Praktikum KPMS

Abstract

Subsphericity testing is encountered most commonly when determining an appropriate number of principal components in PCA. In this work we review a particular test of subsphericity and investigate its asymptotic behaviour in both low- (fixed p) and high-dimensional ($p \equiv p_n$ grows with n) regimes. The test is shown to provide consistent estimates of the latent dimension under a particular, practically intuitive high-dimensional model.