

Statistics and Data Science Seminar

Weighted limit theorems and applications

Yanghui Liu (Purdue University)

Abstract: The term “limit theorem” is associated with a multitude of statements having to do with the convergence of probability distributions of sums of increasing number of random variables. Given that a limit theorem result holds, “weighted limit theorem” considers the asymptotic behavior of the corresponding weighted sums. The weighted limit theorem problem has drawn a lot of attention in recent articles due to its key role in topics such as parameter estimations, Ito’s formula in law, time-discrete numerical schemes, and normal approximations, and various “unexpected” weighted limit theorems have been discovered since then. The purpose of this talk is to introduce a general framework and a transferring principle for this problem, and to provide improvement of the existing results in a few aspects.

Wednesday, September 27 at 4:00 PM in SEO 636