On the Dependence Structure of Scrambled (t, m, s)-nets

Author and Presenter: Jaspar **Wiart** (RICAM, Austria)

Co-author: Christiane **Lemieux** (University of Waterloo, Canada)

Abstract

We study the dependence structure of scrambled (t, m, s)-nets and show that they have a negative lower/upper orthant dependence structure if and only if $t = 0$. This study allows us to gain a deeper understanding about the classes of functions for which the variance of estimators based on scrambled $(0, m, s)$-nets can be proved to be no larger than that of a Monte Carlo estimator.