## Short Course Schedule

## June 19, 2018

Room 202, South Building of AMSS

Title: Optimization techniques in monotonic regression and its applications

Speaker: Oleg Burdakov

Session 1, 8:30 - 10:00

Monotonic regression (MR) problem: formulation and optimality conditions Pool-Adjacent-Violators (PAV) algorithm for linearly ordered data

Session 2, 10:10 - 11:40

Generalized PAV algorithm for solving large scale MR problem with partially ordered data

Session 3, 14:00 - 15:30

Applications of MR in using finite-elements for solving PDEs, and in computational psychology

Session 4, 15:40 - 17:10

Smoothing monotonic regression solutions