

Extremal Problems for Generalized Heat Equation and Optimal Recovery of its Solution from Inaccurate Data

Konstantin Osipenko
MATI-Russian State Technological University, Russia

We consider the problem of optimal recovery of solutions of the generalized heat equation in the unit ball. Information is given at two time instances, but inaccurate. The solution is to be constructed at some intermediate time. We provide the optimal error and present an algorithm which achieves this error level.