Universidade Estadual de Campinas

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Smooth density and its short time estimate for jump process determined by SDE

Abstract

We study a nondegenerate jump-diyusion process determined by SDE. We show the existence of the smooth density $p(s, x; t, y)$ of its transition probability. Assumptions required for these facts are relaxed considerably from past works by Picard and Ishikawa-Kunita. We show these facts using Malliavin.