Abstract

Ito-Tanaka formula for semimartingales is well-known. Moreover, similar results are derived for fractional Brownian motion in both cases; when the stochastic integral is defined as divergence integral and when the stochastic integral is defined pathwise. In this talk we derive pathwise Ito-Tanaka formula for wide class of Gaussian processes containing the particular case of fractional Brownian motion. Examples are introduced and proofs are presented. As an application we derive integral representation for arbitrary random variables with respect to Gaussian processes.