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Jebessa B. Mijena* (jebessa.mijena@gcsu.edu), 231 W. Hancock St, Campus Box 17,
Department of Mathematics, Georgia College & State University, Milledgeville, GA 31061.

Correlation structure of time-changed fractional Brownian motion.

Fractional Brownian motion (fBm) is a centered self-similar Gaussian process with stationary increments, which depends on a parameter $H \in (0, 1)$ called the Hurst index. Time - fractional order Fokker-Planck-Kolmogorov type equations driven by a time-changed fractional Brownian motion was given by Hahn, Kobayashi and Umarov. In modeling, the use of time-changed processes in often requires the knowledge of their second order properties such as covariance function. This paper provides the explicit expression for the covariance function for time-changed fractional Brownian motion and some examples are discussed, as well. (Received February 02, 2015)