Yulia Mishura, Esko Valkeila: *An extension of the Lévy characterization to fractional Brownian motion*; Helsinki University of Technology, Institute of Mathematics, Research Reports A514 (2006).

Abstract: *Assume that X is a continuous square integrable process with zero mean defined on some probability space (Ω, F, P). The classical characterization due to P. Lévy says that X is a Brownian motion if and only if X and $X_t^2 - t$, $t \geq 0$ are martingales with respect to the intrinsic filtration $\mathbb{F}^X$. We extend this result to fractional Brownian motion.*

AMS subject classifications: 60G15,60E05,60H99

Keywords: fractional Brownian motion, Lévy theorem

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Y.M. was partially supported by the Suomalainen Tiedeakatemia and E.V. was supported by the Academy of Finland.

ISBN-13 978-951-22-8400-9
ISBN-10 951-22-8400-6

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