Publ. Mat. **57** (2013), 497–508
DOI: 10.5565/PUBLMAT_57213_11

AN EXTENSION OF SUB-FRACTIONAL BROWNIAN MOTION

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Abstract: In this paper, firstly, we introduce and study a self-similar Gaussian process with parameters $H \in (0,1)$ and $K \in (0,1]$ that is an extension of the well known sub-fractional Brownian motion introduced by Bojdecki et *al.* [**4**]. Secondly, by using a decomposition in law of this process, we prove the existence and the joint continuity of its local time.

2010 Mathematics Subject Classification: 60G18.

Key words: Sub-fractional Brownian motion, bifractional Brownian motion, fractional Brownian motion, local time, local nondeterminism.

independent.