Local limit theorem of some additives function of local time of multifractional Brownien motion

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In this talk we consider $X^H = (X^{H(t)}(t), t \in R^+)$ a multifractional Brownian motion (mBm) with Hurst functional $H(.) \in \mathcal{C}^\beta(R+, (0,1))$. We will define some additives functions of local time of X^H, we study they Hlderien regularity in time, and mixed regularity, that's will alow us to give some property of moduli of continuity. In the end we give local limit theorem of this additive function; but before that we have to prove they verify the local asymptotic self-similarity. This work was inspired from the one of Boufoussi et *al.* (2007). [1].

Références

[1] B. Boufoussi, M. Dozzi, and R. Guerbaz , *Sample path properties of the local time of multifractional Brownian motion*, Bernoulli 133,pp. 849-867, 2007.

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