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FunctionaL Regular Variation of Lévy-driven Multivariate Mixed Moving Average Processes

Robert Stelzer, Martin Moser

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We consider the functional regular variation in the space $\mbox{MA} D^{s} of c^{d} (MA) processes of the type <math>X_t = \inf (A, t - s) (A, d s)$. We give sufficient conditions for an MMA process (X_t) to have c'adl'ag sample paths. As our main result, we prove that (X_t) is regularly varying in $\mbox{Mathbb} D^{s}$ if the driving L'evy basis is regularly varying and the kernel function f^{s} satisfies certain natural (continuity) conditions. Finally, the special case of supOU processes, which are used, e.g., in applications in finance, is considered in detail.

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