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Fractional master equation: Non-standard analysis and Liouville-Riemann derivative. (English) [Zbl 0994.82062](#)

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Summary: Fractional master equations may be defined either by means of Liouville-Riemann fractional derivative or via non-standard analysis. The first approach describes processes with long-range dependence whilst the second approach deals with processes involving independent increments. The present paper puts in evidence some of the differences between these two modellings, and to this end it especially considers more fractional Poisson processes.

MSC:

82C31 Stochastic methods (Fokker-Planck, Langevin, etc.) applied to problems in time-dependent statistical mechanics

Cited in **25** Documents

03H05 Nonstandard models in mathematics

Keywords:

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