

# PREDICTION FORMULAE FOR FRACTIONAL LÉVY PROCESSES WITH APPLICATIONS TO CREDIT RISK

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Recently, a series of papers have been devoted to the study —both theoretical properties and the application to finance— of a type of Lévy-driven Volterra process that exhibit long-range dependence. For instance, [1, 3, 4] consider the case when the driving Lévy process is continuous, whereas [2, 5, 6] consider the pure-jump case. We refer to the processes considered in those papers by *fractional Lévy processes* (fLps).

The aim of this work is to present fLp where the driving process may have both a continuous and a pure-jump part, and to use white noise analysis and techniques in order to obtain an explicit expression for its conditional characteristic formula. Such a prediction formula is of importance in applications, in particular, we show its role in credit risk by pricing convertible contingent bonds (*CoCos*).

## REFERENCES

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