



Variance Optimal Hedging for discrete time processes with independent increments. Application to Electricity Markets

[Stéphane Goutte](#) (LAGA), [Nadia Oudjane](#) (LAGA), [Francesco Russo](#) (CERMICS, INRIA Rocquencourt, UMA)

(Submitted on 18 May 2012)

We consider the discretized version of a (continuous-time) two-factor model introduced by Benth and coauthors for the electricity markets. For this model, the underlying is the exponent of a sum of independent random variables. We provide and test an algorithm, which is based on the celebrated Foellmer-Schweizer decomposition for solving the mean-variance hedging problem. In particular, we establish that decomposition explicitly, for a large class of vanilla contingent claims. Interest is devoted in the choice of rebalancing dates and its impact on the hedging error, regarding the payoff regularity and the non stationarity of the log-price process.

Subjects: **Pricing of Securities (q-fin.PR)**; Probability (math.PR)

Cite as: [arXiv:1205.4089v1](#) [q-fin.PR]

Submission history

From: Francesco Russo [[view email](#)]

[v1] Fri, 18 May 2012 06:51:23 GMT (187kb)

[Which authors of this paper are endorsers?](#)

Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

Current browse context:

q-fin.PR

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1205](#)

Change to browse by:

[math](#)

[math.PR](#)

[q-fin](#)

References & Citations

- [NASA ADS](#)

Bookmark([what is this?](#))

