

**Duplantier, Bertrand; Rhodes, Rémi; Sheffield, Scott; Vargas, Vincent**

**Log-correlated Gaussian fields: an overview.** (English) [Zbl 1366.60023](#)

Bost, Jean-Benoît (ed.) et al., Geometry, analysis and probability. In Honor of Jean-Michel Bismut. Selected papers based on the presentations at the conference 'Control, index, traces and determinants – the journey of a probabilist', Orsay, France, May 27–31, 2013. Basel: Birkhäuser/Springer (ISBN 978-3-319-49636-8/hbk; 978-3-319-49638-2/ebook). Progress in Mathematics 310, 191-216 (2017).

Summary: We survey the properties of the log-correlated Gaussian field (LGF), which is a centered Gaussian random distribution (generalized function)  $h$  on  $\mathbb{R}^d$ , defined up to a global additive constant.

For the entire collection see [[Zbl 1371.58001](#)].

**MSC:**

[60D05](#) Geometric probability and stochastic geometry

[60G22](#) Fractional processes, including fractional Brownian motion

Cited in **12** Documents

**Keywords:**

Gaussian free fields; Liouville quantum gravity; log-correlated Gaussian fields; multiplicative chaos; white noise; Markov properties

**Full Text:** [DOI](#) [arXiv](#)