

Call for papers

Mathematical Geosciences - Special Issue on Multiple-Point Statistics

Guest editors: Philippe Renard and Grégoire Mariethoz

To mark the 20 years of the Multiple-Point Statistics (MPS) paradigm, the journal *Mathematical Geosciences* will publish a special issue on this topic in September 2013.

Over the last 10 years, after the publication of the landmark paper by Sebastian Strebelle in 2002, the interest in Multiple-Point Statistics methods has rapidly grown. The major appeal is the possibility to integrate a complex conceptual geological model through the use of a training image. Furthermore, conditioning is simple and efficient. Since this work, several new algorithms have been developed to tackle more complex situations as well as several major applications have appeared in various fields of geosciences and geoengineering. In addition, MPS has been integrated in various procedures for inverse modeling and this work is still in progress. Despite a growing interest and attractive results, the method has been questioned because of a lack of an explicit mathematical model and potential difficulties in quantifying uncertainty.

The main focus of this special issue will be on the latest theoretical advances and algorithms as well as major new and complex applications. Specially, we invite papers that are related to the following topics:

- The latest multiple-point statistics algorithms
- Recent theoretical developments and new perspectives
- New computational advances
- Integration of MPS in inverse methods
- Recommendations for successful applications
- Complex case studies in any field (large application, post-audit of real case studies)

Authors are invited to **submit their abstract not later than September 20st, 2012.**

Schedule:

- September 20st, 2012, abstract submission
- October 1st, 2012, confirmation of interest from Editors
- January 1st, 2013, paper submission
- February 15th, 2013, return of reviews
- May 1st, 2013, return of revised papers
- Publication in September 2013

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