

Introduction to Mathematical Physics: Schramm–Loewner evolution

Antti Kemppainen

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UNIVERSITY OF HELSINKI

About the course

We mostly follow the book

- Gregory F. Lawler: Conformally Invariant Processes in the Plane, AMS, 2005 .

A couple of sources for learning stochastic analysis are

- Bernt Øksendal: Stochastic Differential Equations: An Introduction with Applications, Springer 2010
- Timo Seppäläinen: Basics of Stochastic Analysis,
<http://www.math.wisc.edu/~seppalai/sa-book/etusivu.html>.

The goals of the second book are slightly too advanced for us.

We assume that the students know some measure theory, probability and complex analysis. See for example:

- Rick Durrett: Probability – Theory and Examples, CUP, 2010
- David Williams: Probability with Martingales, CUP, 1991.
- Walter Rudin: Real and complex analysis, McGraw-Hill, 1987.

Also the book by Seppäläinen contains a nice summary of measure theory.