



Oberwolfach Seminar

Scaling Limits of Random Planar Maps and Liouville Quantum Gravity

Organizers: Jason Miller, Cambridge UK
Scott Sheffield, Cambridge MA
Date (ID): 15 – 21 October 2017 (1742a)
Deadline: 13 August 2017

This seminar will explore random planar maps and their continuum scaling limits. The scaling limits are given by several canonical continuum objects:

1. the Gaussian free field (GFF),
2. the continuum random tree (CRT),
3. Liouville quantum gravity (LQG),
4. Schramm-Loewner evolution (SLE),
5. conformal loop ensembles (CLE),
6. quantum Loewner evolution (QLE),
7. and the Brownian map.

We will also highlight several of the major open problems in the subject, including those involving conformal embeddings of planar maps, metric space structure for LQG surfaces, higher dimensional surface integrals such as those that arise in gauge theory, and diffusion limited aggregation.

Concerning further information please see the website of the seminar:

www.mfo.de/occasion/1742a

The seminar takes place at the Mathematisches Forschungsinstitut Oberwolfach. The Institute covers board and lodging. By the support of the Carl Friedrich von Siemens Foundation travel expenses can be reimbursed up to 150 EUR in average per person (against copies of travel receipts). The number of participants is restricted to 25.

Applications including

- full name and university/institute address
- e-mail address
- short CV, present position, university
- name of supervisor of Ph.D. thesis
- a short summary of previous work and interest
- title, ID and date of the intended seminar

should be sent preferably by e-mail (with attachments in pdf format) to:

Prof. Dr. Dietmar Kröner
Mathematisches Forschungsinstitut Oberwolfach
Schwarzwaldstr. 9 – 11
77709 Oberwolfach
Germany

seminars@mfo.de

