



Conformal welding of independent Gaussian multiplicative chaos measures

Michael McAuley TU Dublin

I am a researcher working mainly in the area of probability theory. I am currently an Assistant Lecturer in the School of Mathematics and Statistics at Technological University Dublin. I previously worked as a postdoctoral researcher at the University of Helsinki and received my PhD from the University of Oxford. Most of my research so far has focused on the geometry of smooth Gaussian fields. I have collaborated with Dmitry Beliaev, Stephen Muirhead, Antti Kupiainen, Eero Saksman and David Wells.



Abstract: Schramm-Loewner evolution (SLE) and Liouville quantum gravity (LQG) are canonical objects lying at the intersection of modern probability theory and mathematical physics. They were elegantly related to one another by Sheffield via conformal welding: roughly speaking, if one takes a particular coupling of a LQG surface and chordal SLE then the SLE curve corresponds to ‘zipping up’ the boundary of the surface in a length-preserving way. In this talk, I describe a complementary approach to understanding this relationship, based on solving the classical conformal welding problem for independent Gaussian multiplicative chaos measures.

讲座时间:

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主办单位:

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