

INTRODUCTION TO LOEWNER ENERGY OF JORDAN CURVES

Speaker: Yilin Wang
Massachusetts Institute of Technology

Time: Wed, Nov 25, 09:00-11:00

Tencent room: 221 932 733

Abstract: Loewner energy is a quantity that measures the roundness of a Jordan curve. It is finite if and only if the Jordan curve is a so-called Weil-Petersson quasicircle, which has more than 20 different but equivalent definitions. In this lecture, I will give an overview on the Loewner energy and highlight the connection to the concepts from seemingly far apart areas of mathematics such as random conformal geometry, Liouville quantum gravity, geometric function theory, and Teichmüller theory. Topics from mathematical physics motivate many of these concepts. The lecture is intended to be very informal to encourage question and discussion.