Course Web Page: math.harvard.edu/~ctm/math219

Instructor: Curtis T McMullen

Term: Spring 2021

Meets Tu-Th, 12-1:15pm. First class 26 Jan.

Shopping Period Meetings, 19 and 21 Jan: See main page above for details!.

Course Description: The flexibility of conformal mappings is a cornerstone of geometry and analysis in the complex plane. Conformal invariance also underpins the remarkable properties of scaling limits of discrete random processes in two dimensions. This course will provide an introduction to foundational results and current developments in the field. Topics may include invariants such as the hyperbolic metric, extremal length, harmonic measure and capacity; quasiconformal mappings; and random processes such as Brownian motion, percolation and SLE.

Preview: For some sample lectures and presentations by the instructor, see math.harvard.edu/~ctm/expositions.

Hardware support: This course requires the student use of iPads or similar devices. To borrow an iPad from Harvard, send email to ipadrequest@fas.harvard.edu.