



Special Colloquium

UCR
Mathematics
Department

DR. TARIK ADOUGAB
BROWN UNIVERSITY

"GEODESIC CURRENTS, COUNTING CURVES, AND MODULI OF GRAPHS"

A geodesic current on a hyperbolic surface is a way of generalizing the notion of a closed geodesic. In this talk, we'll introduce geodesic currents and then show how they can be used to study the Teichmüller space and the dynamics of the corresponding mapping class group action. In particular, in joint work with Juan Souto, we use geodesic currents to count mapping class group orbits of closed curves on a surface. We'll then demonstrate how currents motivate a construction of a Riemannian metric on the moduli space of metric graphs. In joint and ongoing work with Matt Clay and Yo'av Rieck, we study this metric and show how it resembles the Weil-Petersson metric on the classical moduli space of curves.

Tuesday, January 23rd, 2018

Surge 284

Tea Time @ 4:00 p.m.

Talk Begins @ 4:10 p.m.

Ends @ 5:10 p.m.

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