İSTANBUL ANALYSIS SEMINARS

LOGARITHMIC CAPACITY AND RATIONAL LEMNISCATES

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Abstract: First we shall present some basic facts about logarithmic capacity, analytic capacity and Green function in the complex plane. Motivated by considerations related to the semi-additivity property of analytic capacity, we will study the lemniscates of good rational functions. We will prove a reflection principle for the harmonic measure of rational lemniscates and we will give estimates for their capacity and the capacity of their components. This is joint work with Thomas Ransford.

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