5:45 PM Tuesday, July 22 in Merrick 1

Uniqueness of L-Functions and Connections with the Riemann Hypothesis

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We consider the uniqueness problem for L-functions in the Selberg class as meromorphic solutions to Riemann-type functional equations and their connections with the Riemann Hypothesis. This study leads to new characterizations of L-functions via their functional equations, necessary and sufficient conditions for the Riemann Hypothesis, and estimates on the symmetric and asymmetric differences between the nontrivial zeros of L-functions, among other related results.

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