Mariam Al-Hawaj
University of Toronto

Generalized pseudo-Anosov Maps from Holomorphic Dynamics

In this talk, I develop a new connection between the dynamics of quadratic polynomials on the complex plane and the dynamics of homeomorphisms of surfaces. In particular, given a quadratic polynomial, we look at its dynamics on the Hubbard tree, and we discuss whether one can construct an extension of it which is generalized pseudo-Anosov homeomorphism. We present a criterion to determine for which quadratic polynomials such an extension exists.