SPEAKER: Özlem Imamoglu (ETH Zurich, Switzerland)

TITLE: Cycle integrals of modular functions, Markov geodesics, and a conjecture of Kaneko

ABSTRACT: In this talk I will report on joint work with P. Bengoechea in which we study the "values" of modular functions at real quadratic irrationalities in general and at Markov numbers in particular. The values of modular functions at real quadratic irrationalities are defined in terms of cycle integrals along closed geodesics. I will start the talk with an introduction to cycle integrals, Markov numbers and their properties and then give the conjectures of Kaneko on the values of modular functions along closed geodesics. I will finish with the proof of some of these conjectures.