ANGELICA BABEI, Centre de recherches mathématiques, Université de Montréal
Zeros of period polynomials for Hilbert modular forms

The study of period polynomials for classical modular forms has emerged due to their role in Eichler cohomology. In particular, the Eichler-Shimura isomorphism gives a correspondence between cusp eigenforms and their period polynomials. The coefficients of period polynomials also encode critical L-values for the associated modular form and thus contain rich arithmetic information. Recent works have considered the location of the zeros of period polynomials, and it has been shown that in various settings, their zeros lie on a circle centered at the origin. In this talk, I will describe joint work with Larry Rolen and Ian Wagner, where we introduce period polynomials for Hilbert modular forms of level one and prove that their zeros lie on the unit circle. In particular, I will detail some of the computational tools we used in our proof.