SAMIR CANNING, University of California San Diego
The Chow rings of moduli spaces of elliptic surfaces

For each nonnegative integer N, Miranda constructed a coarse moduli space of elliptic surfaces with section over the projective line with fundamental invariant N. I will explain how to compute the Chow rings of these moduli spaces when $N \geq 2$. The Chow rings exhibit many properties analogous to those expected for the tautological ring of the moduli space of curves: they satisfy analogues of Faber's conjectures, which in the $N = 2$ case confirms a conjecture of Oprea and Pandharipande on moduli spaces of K3 surfaces polarized by a hyperbolic lattice. Faber's conjectures have led to deep connections between combinatorics and moduli theory, and I will discuss the potential for new connections in the moduli of K3 surfaces setting. This is joint work with Bochao Kong.