

**Speaker:** Eric Astor

**Title:** Robust computation modulo “small” sets

**Abstract:** Sparked by results from geometric group theory, several researchers (beginning with Jockusch and Schupp) have generalized the notion of computability; rather than worrying about worst-case performance, this new approach defines a family of near-computability notions, deeming a computation “usually correct” if it gives the right answer in finite time on all but a small set of inputs. The original variations permit different forms of error, but most adopt the same convention for the size of a set; a set is small if it has asymptotic density 0.

This talk will focus on strengthening our definition of a small set, to find a notion of “usually correct” computation that is not sensitive to how an algorithm’s inputs are encoded.