## Be'eri Greenfeld, University of Washington – January 23rd, 2025

Title: Local smallness and global largeness: a quantitative approach

**Abstract:** The Kurosh Problem asks whether a finitely generated algebraic algebra can be infinite-dimensional. This is the algebraic counterpart of the Burnside Problem, which asks whether a finitely generated periodic group can be infinite. We examine these problems from modern perspectives, including quantitative asymptotics, complexity of words, free subobjects and randomization.