

## **Computational tools for FI-algebras**

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An FI-algebra encodes a family of algebras with symmetric group actions, and an ideal of an FI-algebra represents an infinite family of ideals with symmetry. I will give an overview of some results about when such ideals are finitely generated, and how to compute with them, including notions of Gröbner bases and Hilbert series. Along the way we will see some surprising connections to combinatorics, such as well-partial orders and regular languages.