

Title: Chains of Symmetric Ideals
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Abstract: Ideals in polynomial rings in countably many variables that are invariant under a suitable action of a symmetric group arise in various contexts, including algebraic statistics and representation theory. Any such ideal can be described by an ascending chain of symmetric ideals in finitely many variables. We discuss recent results describing properties of ideals in such chains and their limits. The arguments use in particular an extension of FI-modules and Gröbner bases.

This is based on joint work with Tim Römer.