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The Core of Monomial Ideals

Let R be a commutative ring and I an R-ideal. Rees and Sally defined the *core of I* as the intersection of all of its reductions. In general it is very hard to explicitly compute the core of an ideal as it may require the intersection of infinitely many ideals. In this project we find a formula for the core of monomial ideals satisfying certain residual assumptions. This is work in progress jointly with Louiza Fouli, Claudia Polini, and Bernd Ulrich.