Mathematics, Statistics, and Computer Science **@ UIC**

## Commutative Algebra Seminar

*F-purity deforms in Q-Gorenstein rings*

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**Abstract:** Given a local ring R of prime characteristic p>0 and a non-zero-divisor f such that R/(f) is F-pure, is it necessarily the case that R is F-pure? That is, does F-purity deform? Fedder answered this question affirmatively if R is Gorenstein, but non-Q-Gorenstein counterexamples exist due to both Fedder and Singh. In this talk, I'll present a recent solution to this deformation question when R is assumed to be Q-Gorenstein. Joint work with Thomas Polstra.

Wednesday, April 7 at 4:00 PM in Zoom