1163-13-1405   **Thomas Polstra** (`tp2tt@virginia.edu`) and **Austyn Simpson*** (`awsimps2@uic.edu`).
        F-purity deforms in $\mathbb{Q}$-Gorenstein rings.

Given a local ring $(R, \mathfrak{m})$ of prime characteristic $p > 0$ and a non-zero-divisor $f \in \mathfrak{m}$ such that $R/(f)$ is F-pure, is it necessarily the case that R is F-pure? Fedder answered this question affirmatively for Gorenstein rings, but constructed a counterexample which is non-$\mathbb{Q}$-Gorenstein. In this talk, we present an affirmative answer to this deformation question provided that R is $\mathbb{Q}$-Gorenstein. This is joint work with Thomas Polstra. (Received September 15, 2020)