

## Commutative Algebra Seminar

### *Globally $\pm$ -regular varieties*

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**Abstract:** We generalize the theory of globally F-regular pairs to mixed characteristic, which we call  $\pm$ -regularity, and introduce certain stable sections of adjoint line bundles. This is inspired by recent work of Bhatt on the Cohen-Macaulayness of the absolute integral closure. We will discuss some applications of these results to birational geometry in mixed characteristic. Joint work with Bhargav Bhatt, Zsolt Patakfalvi, Karl Schwede, Kevin Tucker, Joe Waldron, and Jakub Witaszek.

Wednesday, March 10 at 4:00 PM in Zoom