## Algebraic Geometry Seminar

*Frobenius twists of ample vector bundles*

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**Abstract:** In 1987, Deligne and Illusie famously gave an algebraic proof of the degeneration of the Hodge-to-de Rham spectral sequence and the Kodaira vanishing theorem. Their methods have been used since (by Arapura and others) to prove strong vanishing theorems. I'll discuss their methods, a conjecture that would strengthen them, and a proof of some important special cases of that conjecture. I'll also give some applications to toric varieties.

Wednesday, October 25 at 4:00 PM in SEO 427