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**Nathan Iten\*** (niten@sfu.ca) and **Hendrik Suess** (hendrik.suess@ed.ac.uk). *Frobenius Splitting of Varieties with Torus Action.*

The property of an algebraic variety being Frobenius split has many strong consequences, including certain cohomological vanishing. While normal toric varieties are always Frobenius split, varieties with more general torus actions need not be.

In this talk, I will relate the existence of a Frobenius splitting for a normal variety with torus action to the existence of a Frobenius splitting for a suitable quotient. This leads to a complete characterization of which normal varieties with complexity-one torus action are Frobenius split, as well as a reinterpretation of Payne's characterization of diagonally split toric varieties. (Received July 22, 2014)