Title: Deformations of log-canonical Poisson brackets with an open T-leaf

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Abstract: A log-canonical Poisson bracket is one of the form {x_i,x_j} = lambda_{ij} x_i x_j. Assuming there exists an action of an algebraic torus T that preserves the bracket and admits an open T-leaf (i.e. an open T-orbit of a symplectic leaf), I will describe all T-invariant Poisson deformations of { , }. The key result here is an unobstructedness phenomenon akin to the Bogomolov-Tian-Todorov theorem in the deformation theory of Calabi-Yau manifolds. Time permitting, I will discuss applications of this deformation-theoretic approach to the Poisson brackets on Bott-Samelson varieties and Poisson CGL extensions in the sense of Goodearl-Yakimov. This is joint work with Jiang-Hua Lu.