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Ivan Mirkovic*, Math Dept, Umass, Amherst, MA 01003. *A t-structure on coherent sheaves on cotangent bundle of a flag variety.* Preliminary report.

This is a joint work with Bezrukavnikov and Rumynin. Representations of the Lie algebra of a semisimple algebraic group over a field of positive characteristic can be localized to D-modules on the flag variety and to coherent sheaves on Springer fibers. This gives an exotic t-structure on such coherent sheaves and this t-structure can be extended to coherent sheaves on the whole cotangent bundle and then characterized in terms of an action of the affine braid group by intertwining functors. (Received February 22, 2006)