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Laura J Rider* (laurajoy@mit.edu) and **Amber Russell**. *Formality for the nilpotent cone and Lusztig's generalized Springer correspondence*. Preliminary report.

Borho–MacPherson's version of the Springer correspondence associates perverse sheaves on the nilpotent cone with representations of the Weyl group. However, not all perverse sheaves on the nilpotent cone appear in this correspondence. Lusztig extended this to include all perverse sheaves and related them to the representation theory of a so-called relative Weyl group. In my talk, I'll give a gentle introduction to perverse sheaves, discuss the generalized Springer correspondence, an orthogonal decomposition of the derived category associated to cuspidal data, and a description of the derived category of sheaves on the nilpotent cone in terms of differential graded modules. This is joint work with Amber Russell. (Received September 22, 2015)