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Laura Rider and **Amber Russell*** (arusse11@math.uga.edu). *Lusztig's Generalized Green Functions*.

For a reductive algebraic group in good characteristic, Lusztig's generalized Springer Correspondence and his work proving the cleanness of character sheaves leads to an orthogonal decomposition of the equivariant derived category of constructible sheaves on the nilpotent cone. The orthogonal decomposition can be used to tell us about which local systems (on each orbit) appear as restrictions of the simple perverse sheaves. This information is encoded in Lusztig's generalized Green functions. In this talk, we will revisit the work of Lusztig, and explore a new definition for the generalized Green functions, one which emphasizes their connection to stalks of simple perverse sheaves. (Received July 28, 2014)