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([witt@ku.edu](mailto:witt@ku.edu)), 405 Snow Hall, 1460 Jayhawk Blvd., Lawrence, KS 66045. *Local cohomology and connectivity in mixed characteristic.*

Certain local cohomology modules determine connectivity properties of the spectrum of a ring; some very interesting connections between these have only been shown in the equicharacteristic setting. In this talk, we present a new vanishing theorem for local cohomology modules in mixed characteristic, and discuss what can be said about connectivity in this setting as a consequence. (Received February 16, 2016)