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Wesley Hamilton* (wham@live.unc.edu). *Graph nodal domains and data.*

While eigenvector based methods are fairly common nowadays (e.g. diffusion maps, Fiedler vectors, etc.), their nodal domains have, until recently, not seen extensive use. In this presentation I'll review some recent approaches to analyzing data that utilize nodal domains of graph Laplacian eigenvectors. I will also comment on the consistency of nodal domains; if the data is a geometric graph, then nodal domains on the graph will converge to nodal domains on the underlying sampled domain. (Received January 18, 2021)