1135-55-2465 **Radmila Sazdanovic*** (rsazdan@ncsu.edu), Depatment of Mathematics NCSU, Raleigh, NC 27695-8205. *Persistence-Based Summaries for Metric Graphs.*

Metric graphs are omnipresent in data analysis and so are the methods and algorithms for analyzing them. The topic of this talk is analyzing metric graphs using persistent homology with a goal of capturing more intricate graph properties. In particular, we construct qualitative/quantitative summaries of metric graphs, compare their discriminative powers, and describe graph properties detected by these persistence-based summaries. This is joint work with Ellen Gasparovic, Maria Gommel, Emilie Purvine, Bei Wang, Yusu Wang, and Lori Ziegelmeier. (Received September 26, 2017)