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**Ted Theodosopoulos\*** (ttheodosopoulos@nuevaschool.org), 131 E. 28th Ave., San Mateo, CA 94403. *Persistent homology measures of stochastic network models*. Preliminary report.

We present a class of spin processes on dynamic networks, where the evolution of the network is coupled to the stochastic spin dynamics. Applications of these models are discussed in economics and biology. We investigate the generation of random variables that measure the persistent homology of these evolving networks. The resulting distributions can be used as a data filter to infer properties of the underlying networks. (Received September 27, 2017)