Hitesh Gakhar\* (hitesh.gakhar@gmail.com) and Jose A. Perea. Kunneth Formulae in Persistent Homology.

The classical Kunneth formula in homological algebra provides a relationship between the homology of a product space and those of its factors. In this talk, we will give similar results for persistent homology. That is, we will give relationships between barcodes of two different notions of product filtrations and that of their factor filtered spaces. We also present two applications: one gives faster algorithms for computing persistent homology in the setting of Vietoris-Rips complexes and the other gives barcodes for certain multiparameter persistence modules. (Received September 22, 2018)