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Nikola Milicevic* (nqm5625@psu.edu), McAllister Building, Pollock Rd, State College, PA

16802. *Operations on quiver representations in persistence theory.*

Persistent homology is a central topic in topological data analysis. By studying homology with field coefficients of sublevel set filtrations of functions we obtain a persistence module. These objects have a rich algebraic structure and are a special case of quiver representations. In applications they satisfy the Krull-Remak-Schmidt property. In other words, they can be uniquely decomposed into a sum of indecomposables. I will discuss recent work in defining homologically sound operations between these objects with some applications. (Received August 07, 2021)