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Kevin P Knudson*, PO Box 118105, Gainesville, FL 32611. *Approximate triangulations of Grassmannians*. Preliminary report.

Schubert cell decompositions of Grassmannians have been known for decades, but ask for a specific triangulation of one of these manifolds and you'll be greeted with "Umm, triangulate the Schubert cells?" In this talk I will use persistent homology to construct simplicial complexes that approximate Grassmannians in the sense that their vertices lie on embedded Grassmannians and their homology is correct. This problem was suggested to me by Vidit Nanda and is still very much in progress. (Received September 04, 2019)