Efficient computation of multiparameter persistent homology

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Abstract: We will present an efficient implementation of an algorithm to compute multiparametric persistent homology. The algorithm uses algebraic techniques and was originally proposed by Chacholski, Scolamiero, and Vaccarino. During the talk, we will explain the different reformulations of the definition of multiparametric persistence that give rise to the algorithm we corrected and implemented. This is joint work with Nina Otter (MPI-Lepizig).