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Jesus A. De Loera, Robert Krone, Lily Silverstein* (lsilverstein@cpp.edu) and Zekai Zhao. Algorithm selection for Hilbert series computations.

We look at the problem of selecting the best among several algorithms for computing the Hilbert series of a monomial ideal. Which algorithm is fastest varies with the problem instance, so a neural network trained to automate this choice for each input can outperform any of the individual algorithms. (Received March 03, 2020)