

## Learning with symmetries and quasisymmetries

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Symmetries can be used to compress information. Knowing the symmetries of a problem helps us reduce its size and make it more manageable; the latter is particularly important in machine learning models. However, in many situations, we are lucky enough to have a full symmetry; how can we go around this? In this talk, I will discuss some ideas on the boundary between invariant theory and machine learning, including current ongoing efforts to use more general quasiinvariants. Joint ongoing work with Dustin Mixon, Soledad Villar and Brantley Vose.