

# **LEARNED IMAGE FLOWS WITH EQUIVARIANCE CONSTRAINTS**

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Learned Physics methods for PDEs are considered with fitting a model based on spatial and temporal derivatives to observed data, usually exploiting sparsity of representation. Well known methods include SINDy, Symbolic Regression, and Neural ODEs. In this work we consider these methods for learning image flow PDES and propose using invariant feature of images to define a more efficient search space