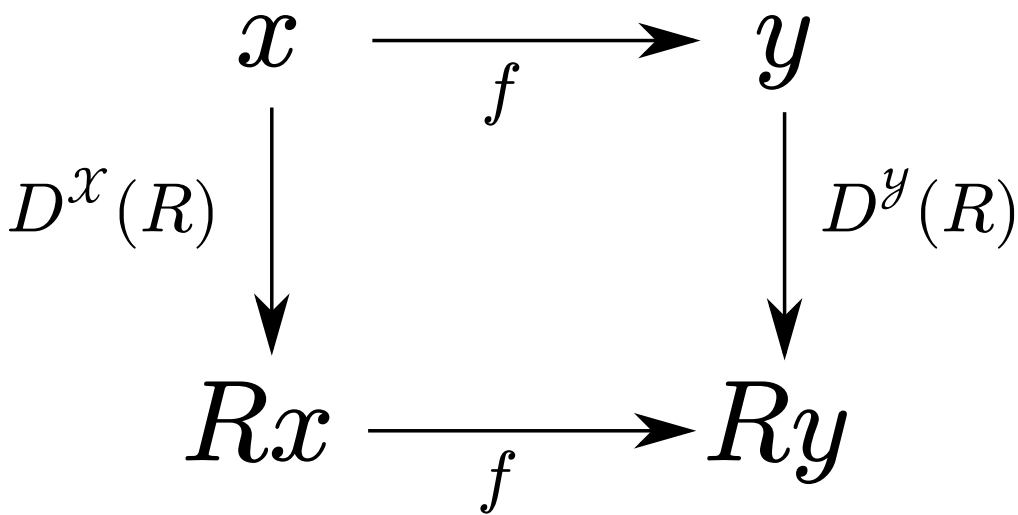


Equivariant Tensor Property Prediction with Graph Neural Networks

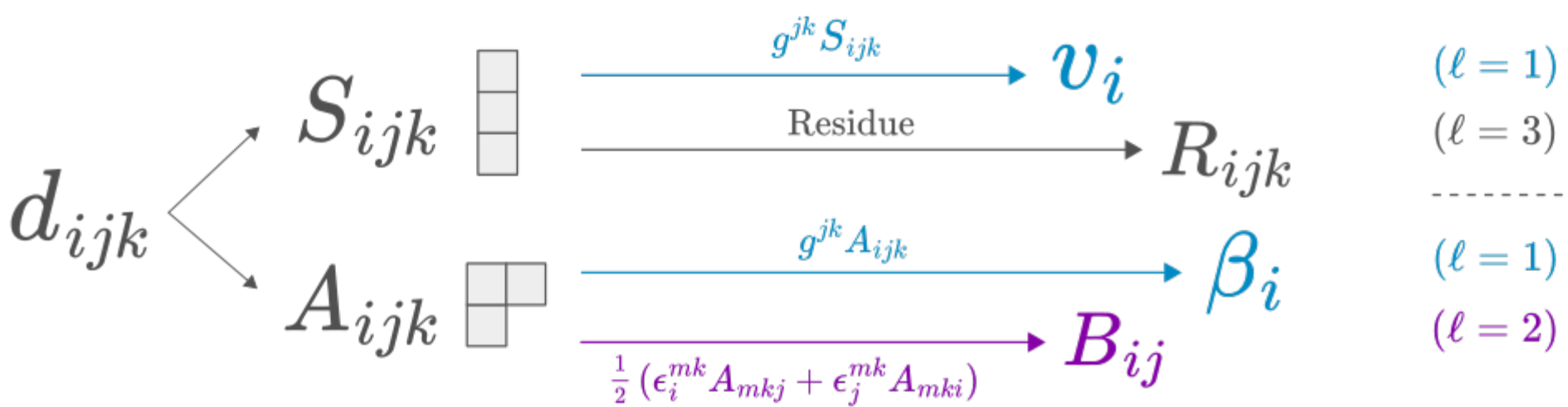
Alex Heilman, Claire Schlesinger, Qimin Yan

Department of Physics, Northeastern University, Boston, MA 02115

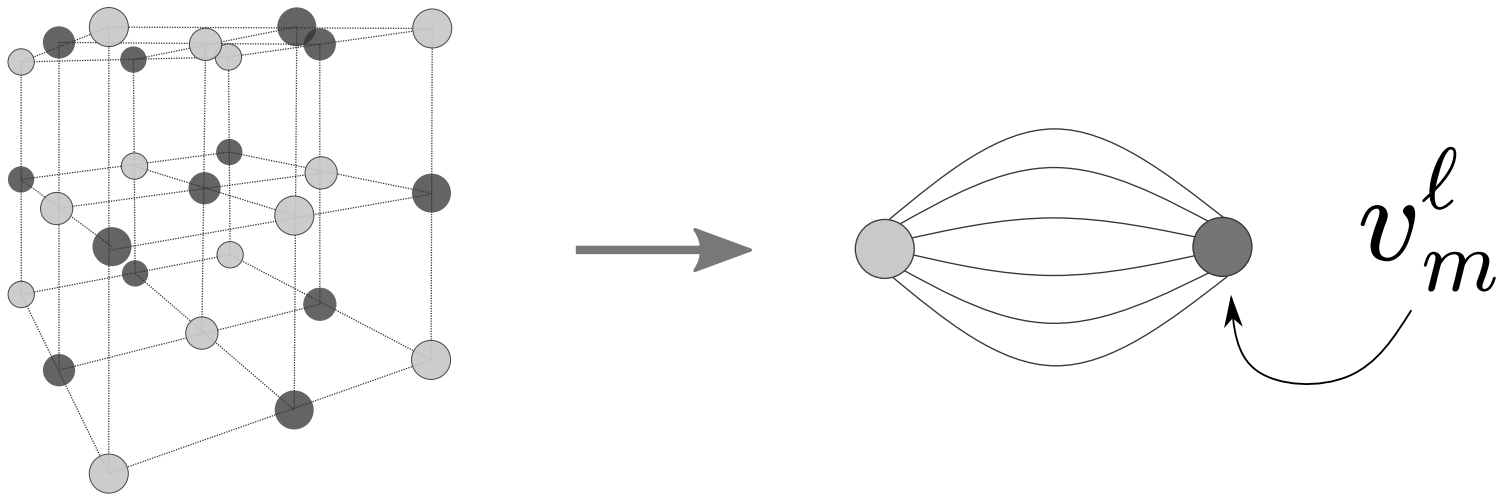
Equivariance



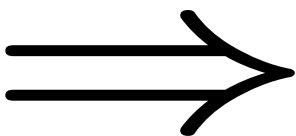
Harmonic Tensor Decompositions



Equivariant Networks



Graph Neural Network



Tensor Prediction

Dielectric ϵ_{ij}
Piezoelectric d_{ijk}
Elasticity C_{ijkl}

[<https://arxiv.org/abs/2406.03563>]