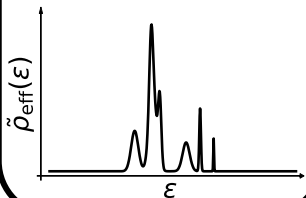
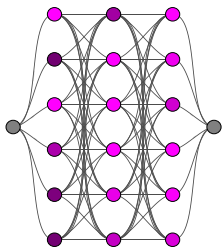
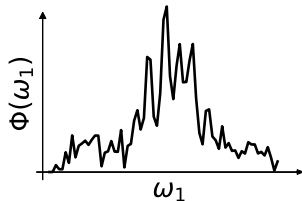


Trainable neural network
Representation of
Accessible Density of
States

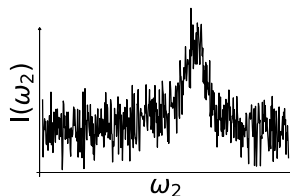


Experimental measurements

XFEL spectrum



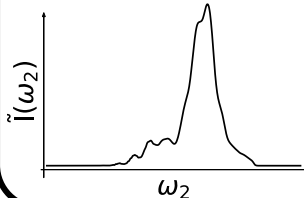
RIXS spectrum



Differentiable physics
model for RIXS intensity

$$\tilde{I} = P_{\text{RIXS}}(\Phi_k, \tilde{\rho}_{\text{eff}})$$

Calculated RIXS



Objective loss

$$\mathcal{L} = \|\tilde{I} - I\|_2$$