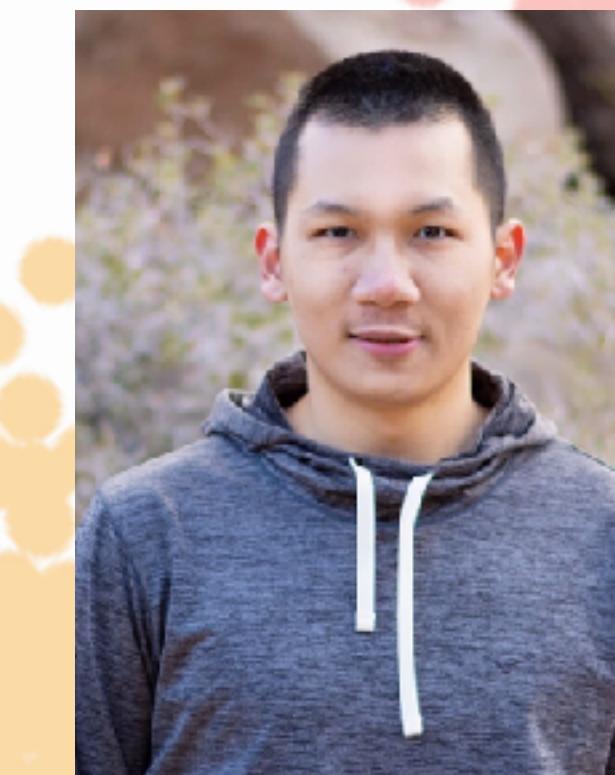


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Multimodal Model Agnostic Meta-Learning via Task-Aware Modulation



Risto Vuorio*



Shao-Hua Sun*

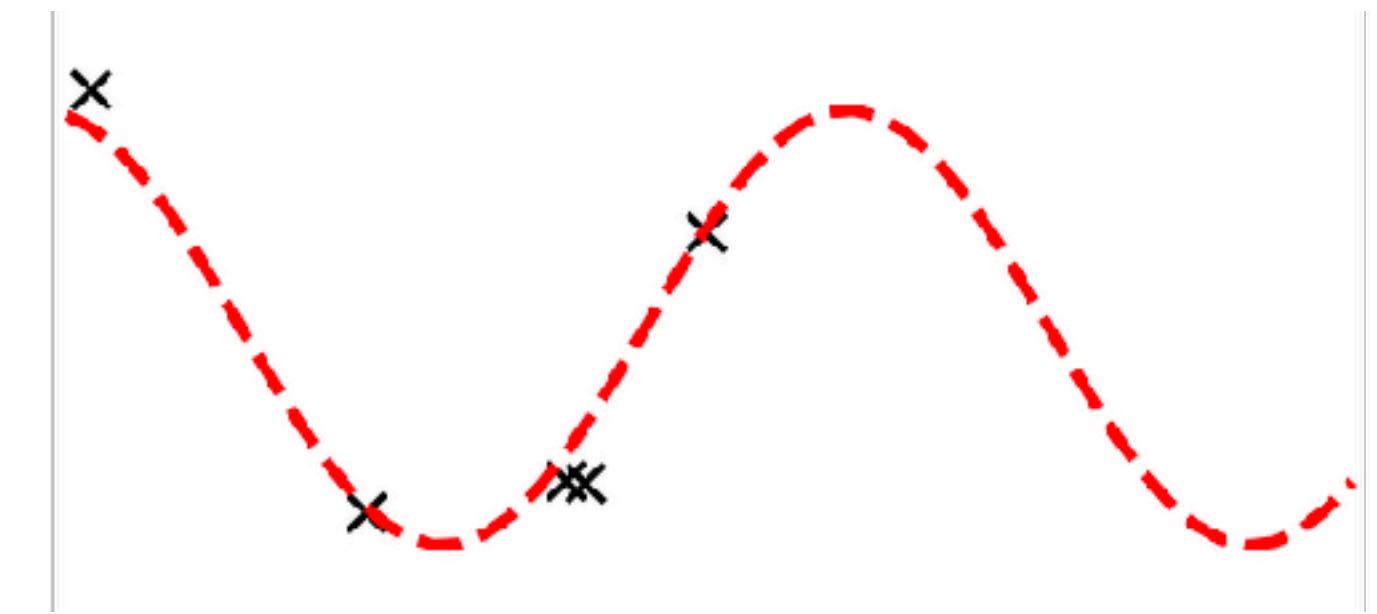


Hexiang Hu

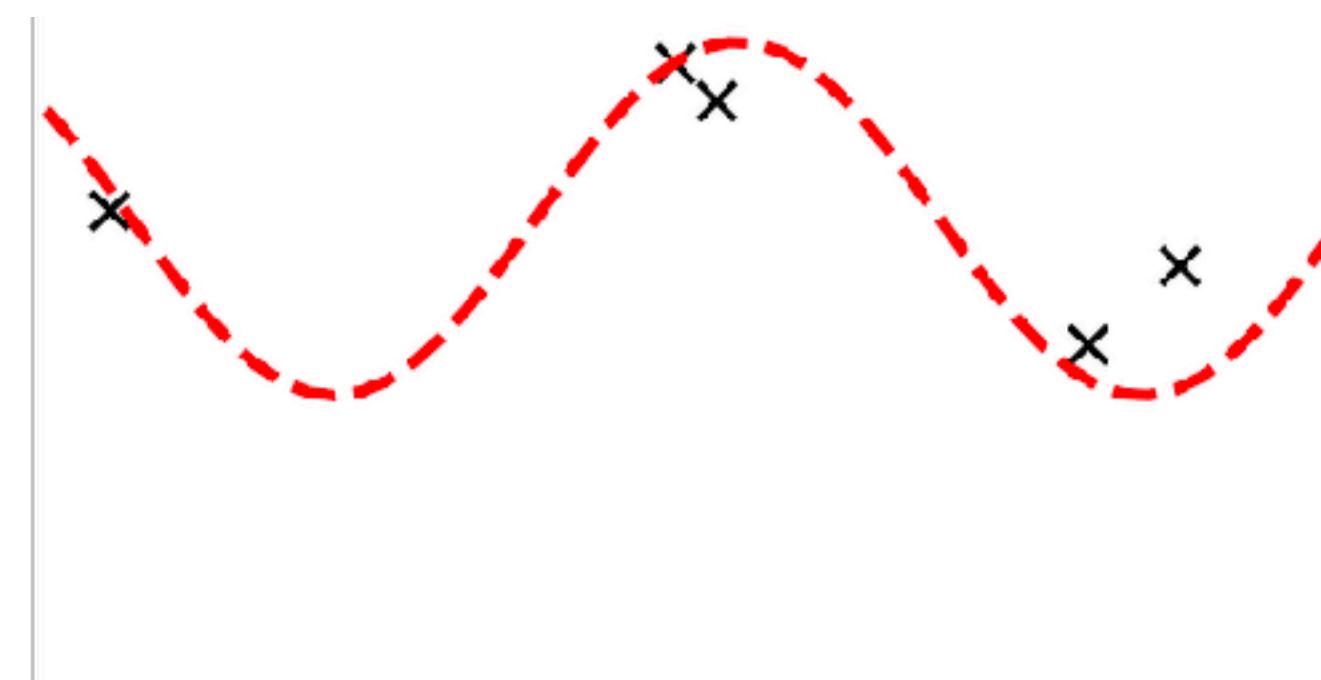
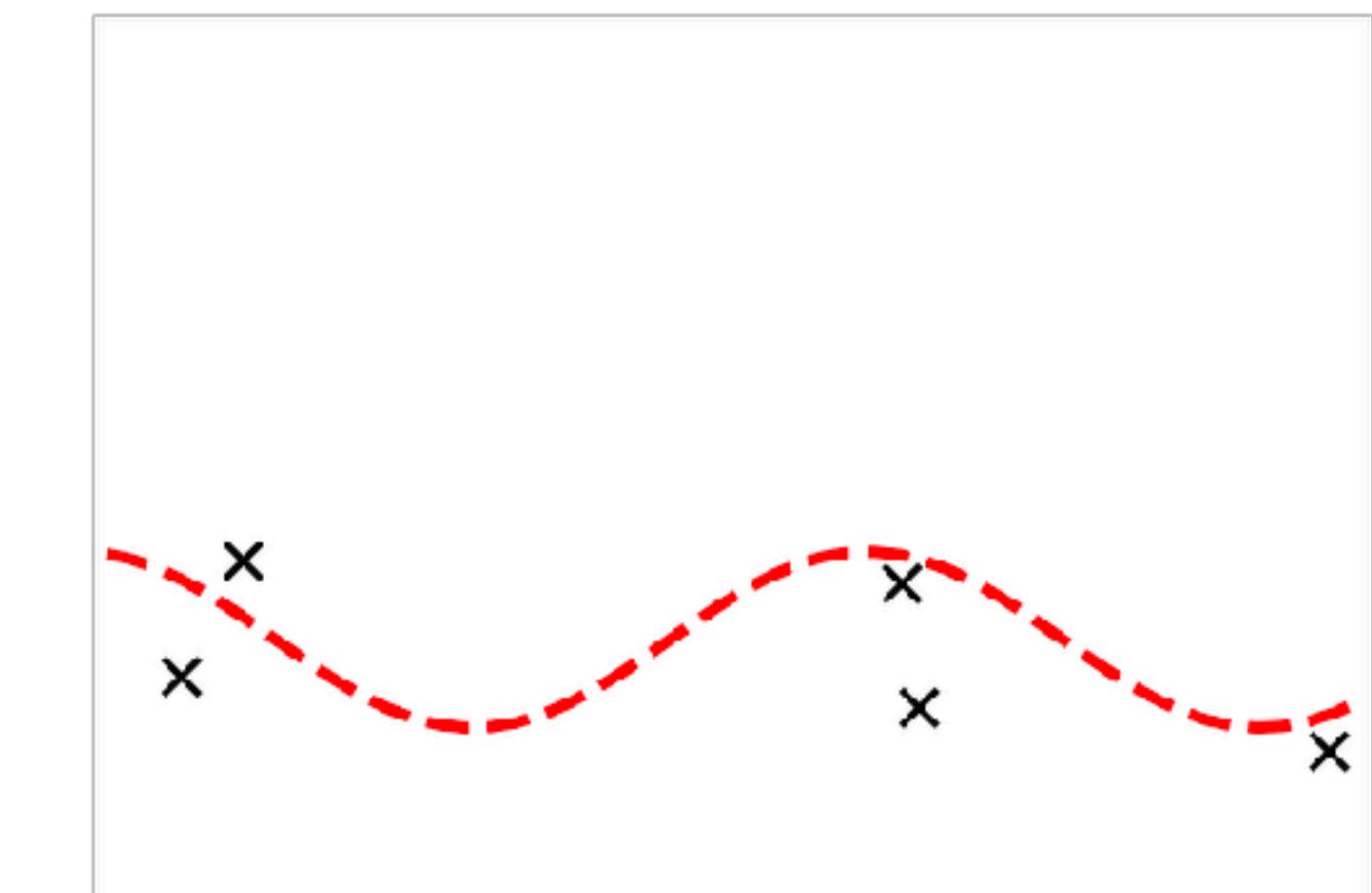
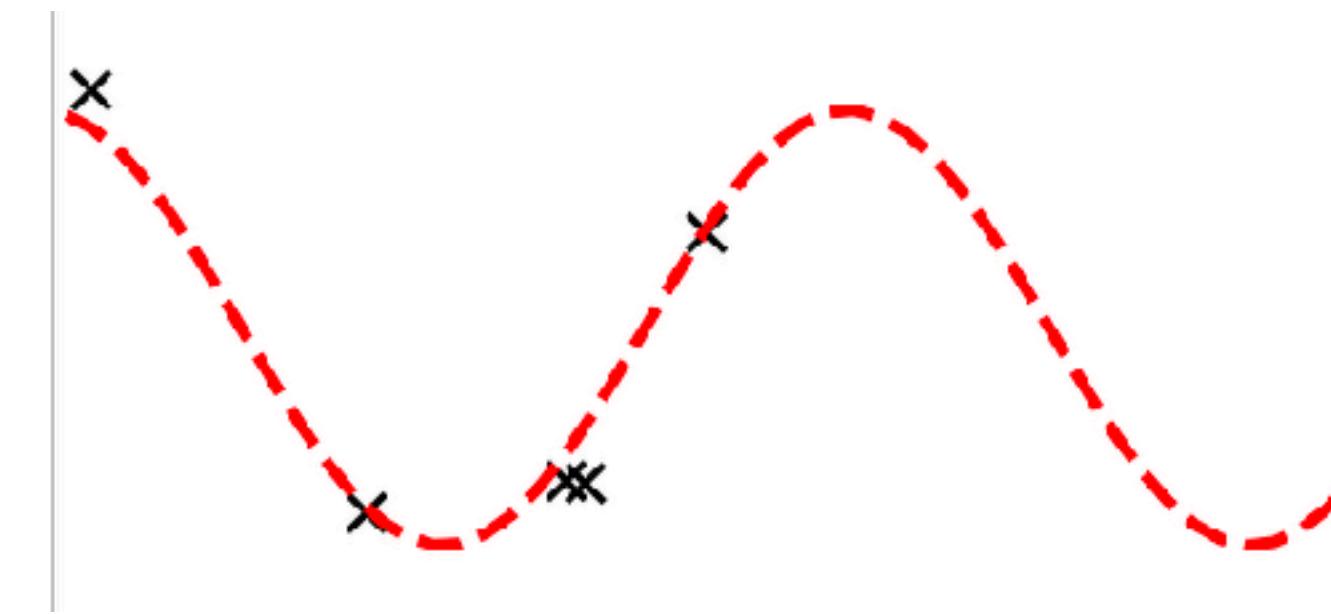


Joseph J. Lim

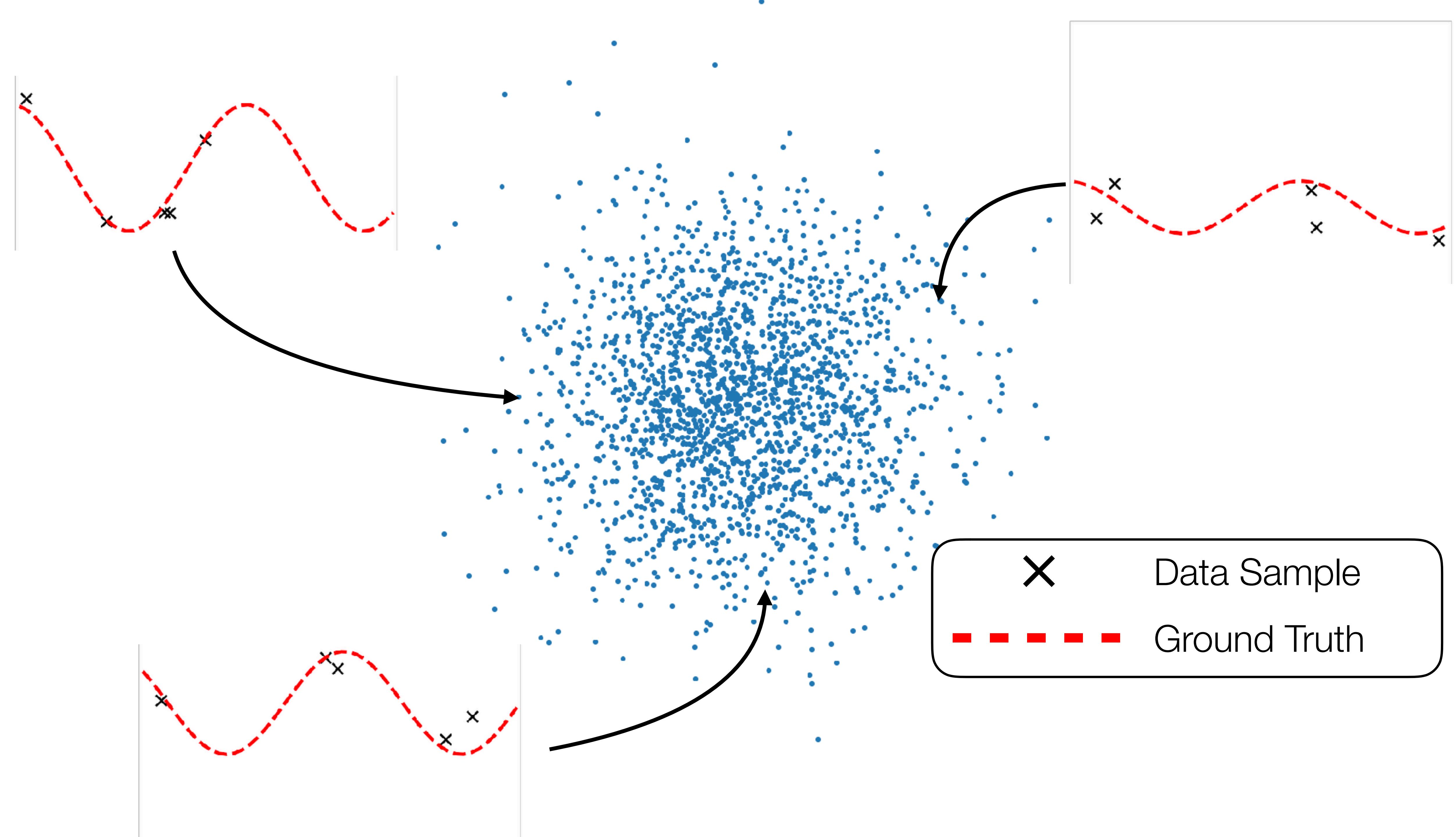


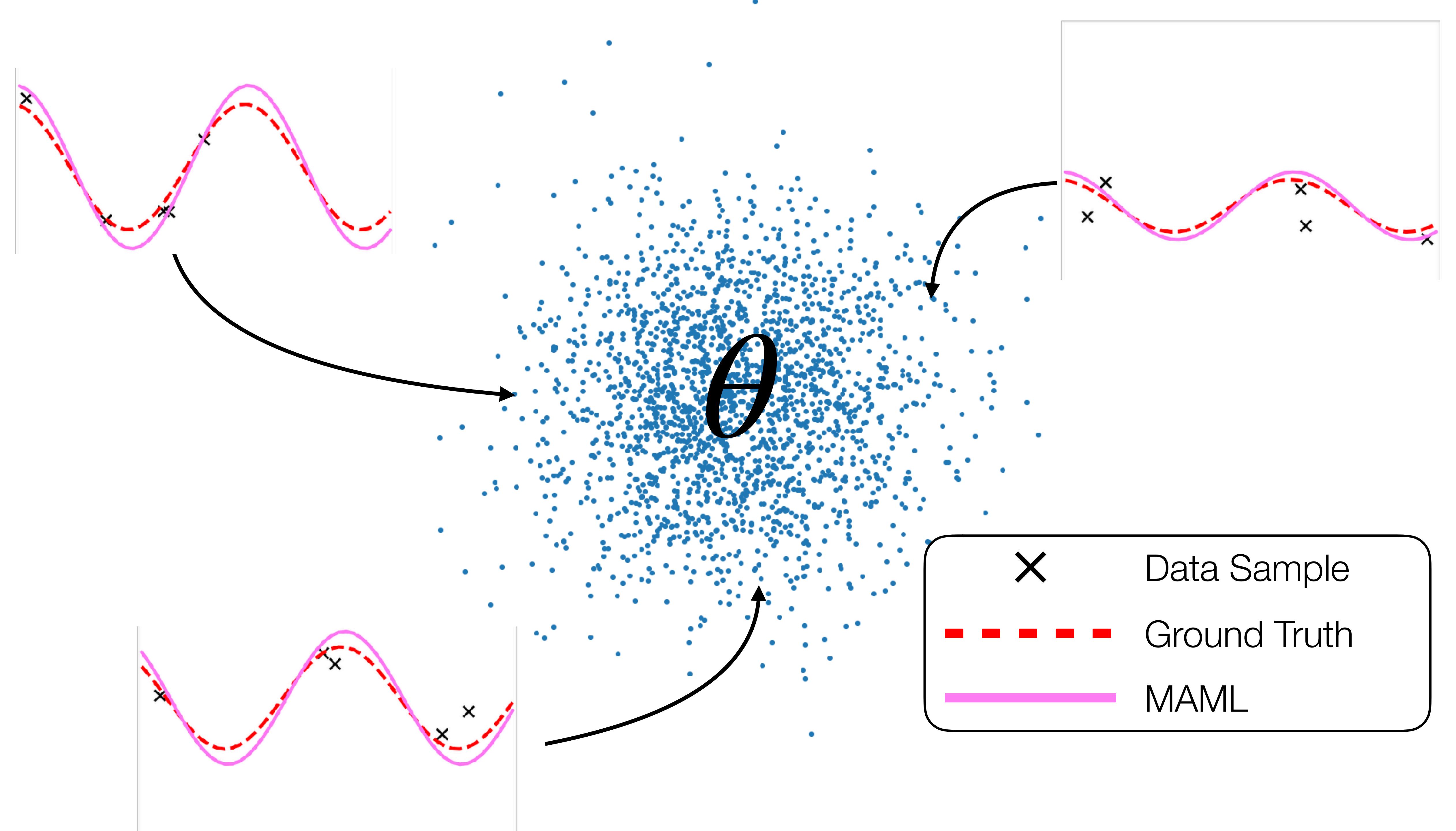


 Data Sample
 Ground Truth

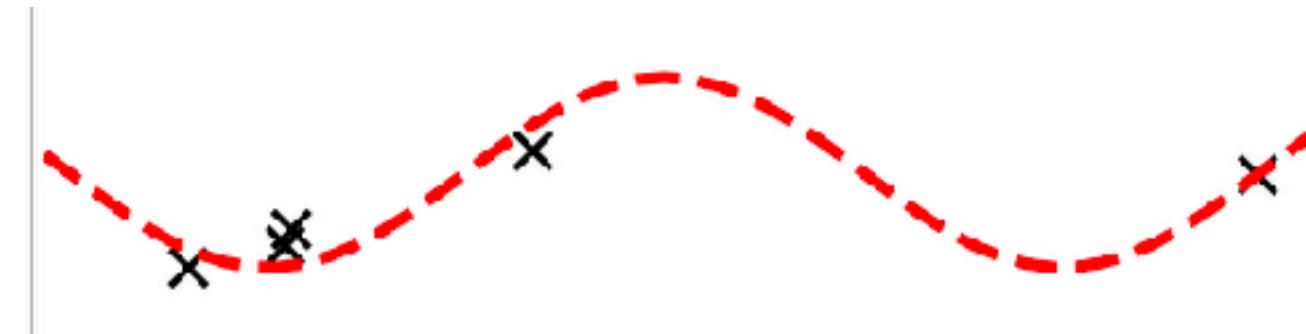


Data Sample
 Ground Truth

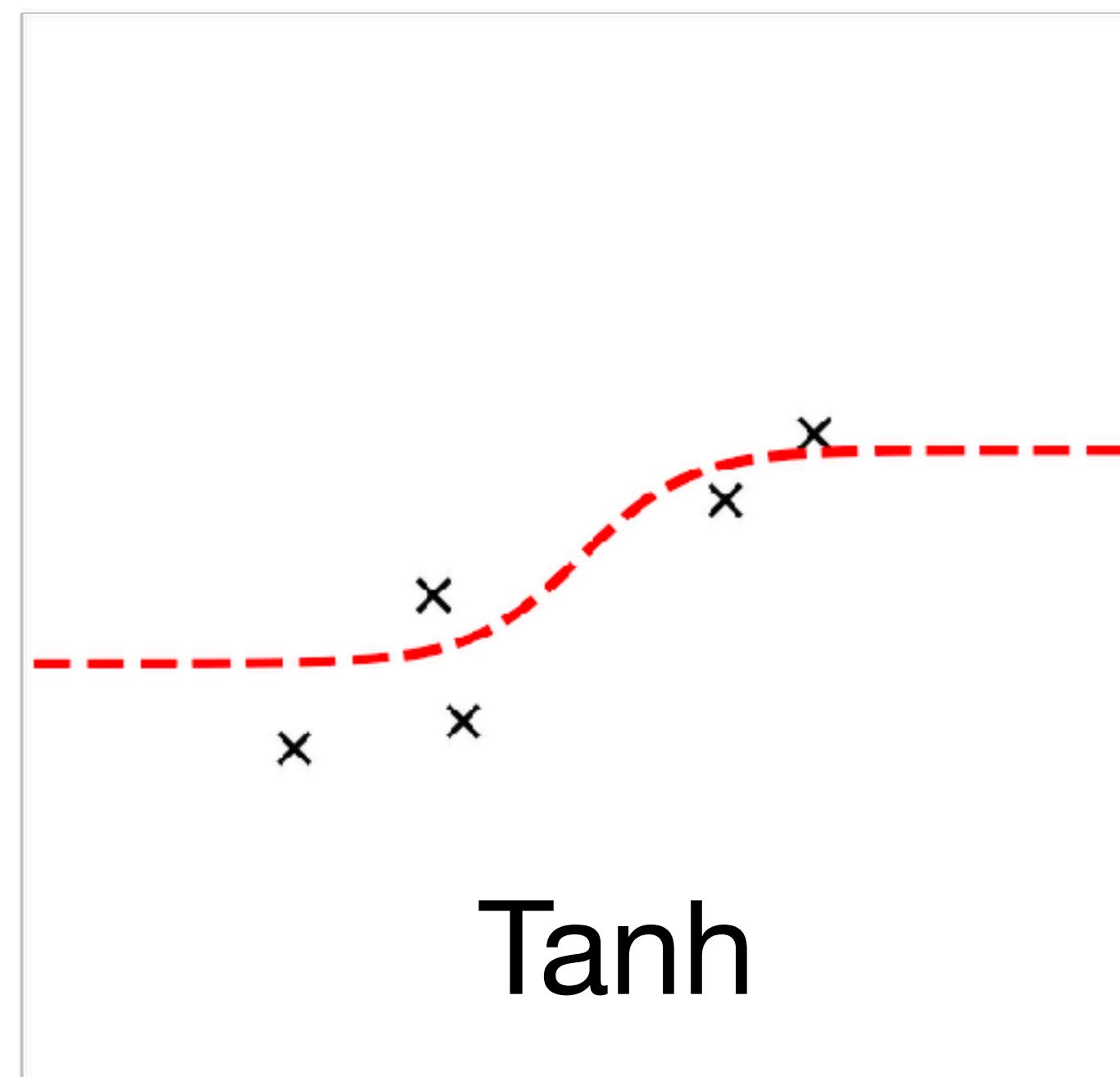




Sinusoid



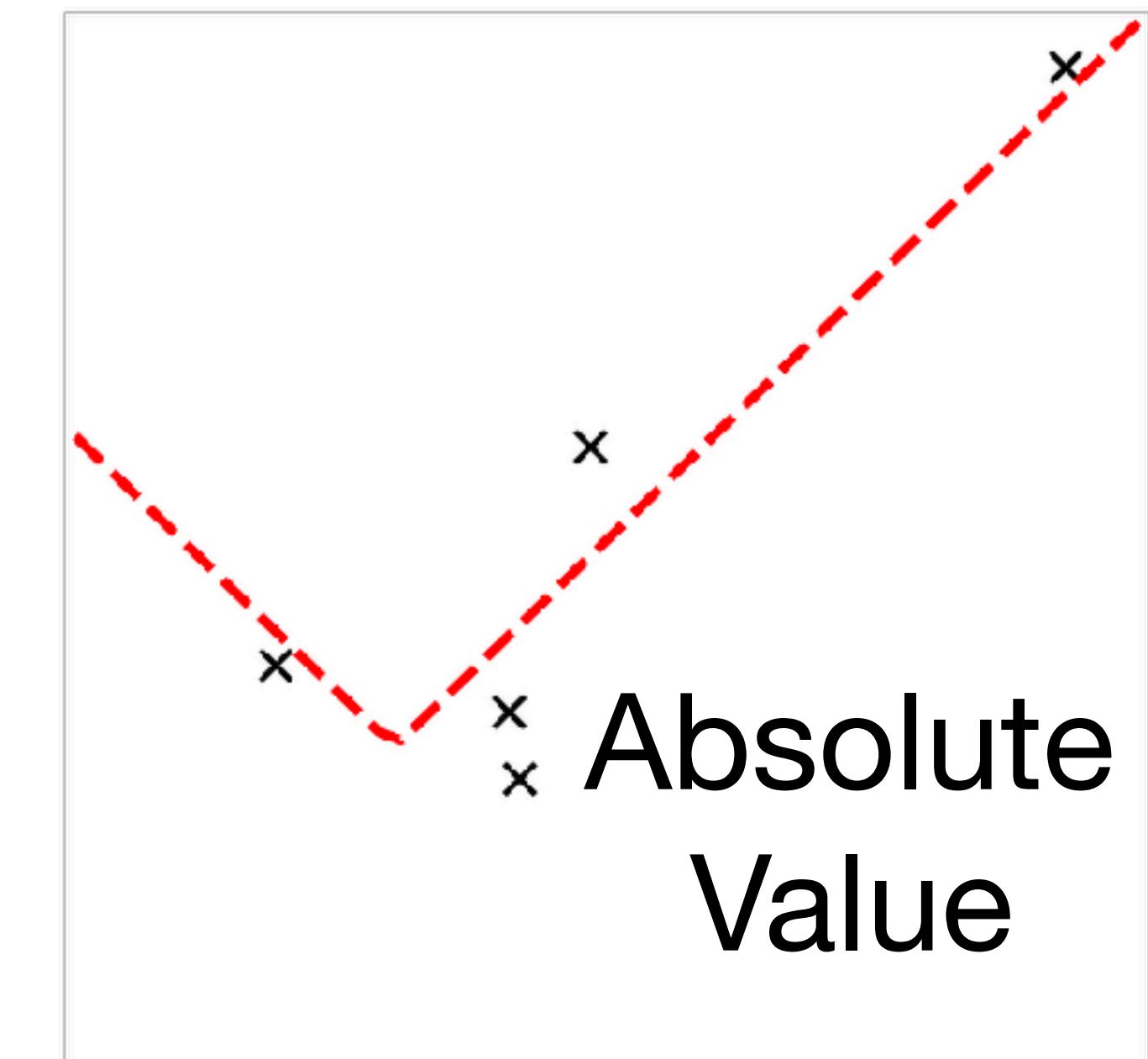
Tanh



Data Sample

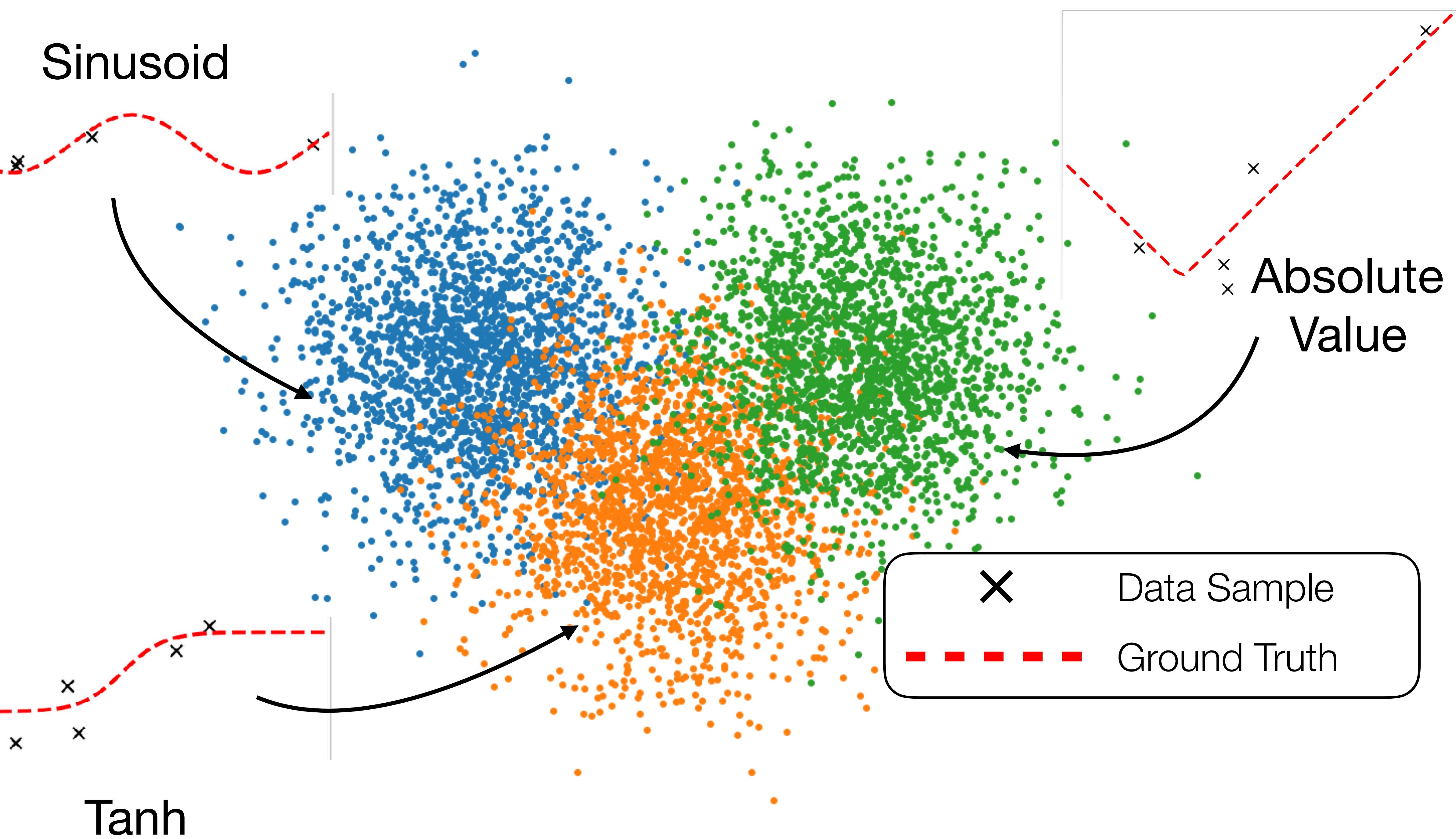


Ground Truth

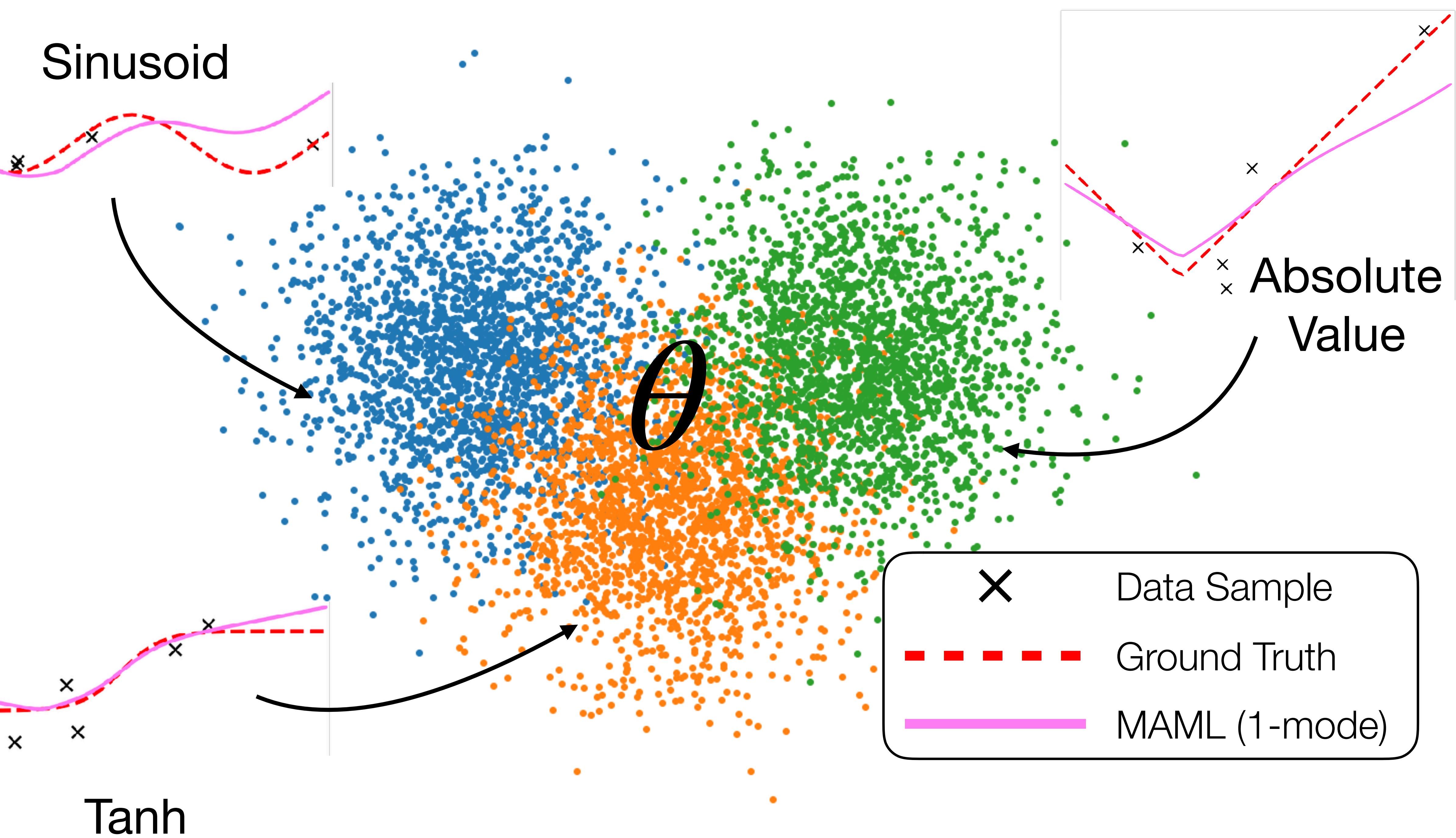


Absolute
Value

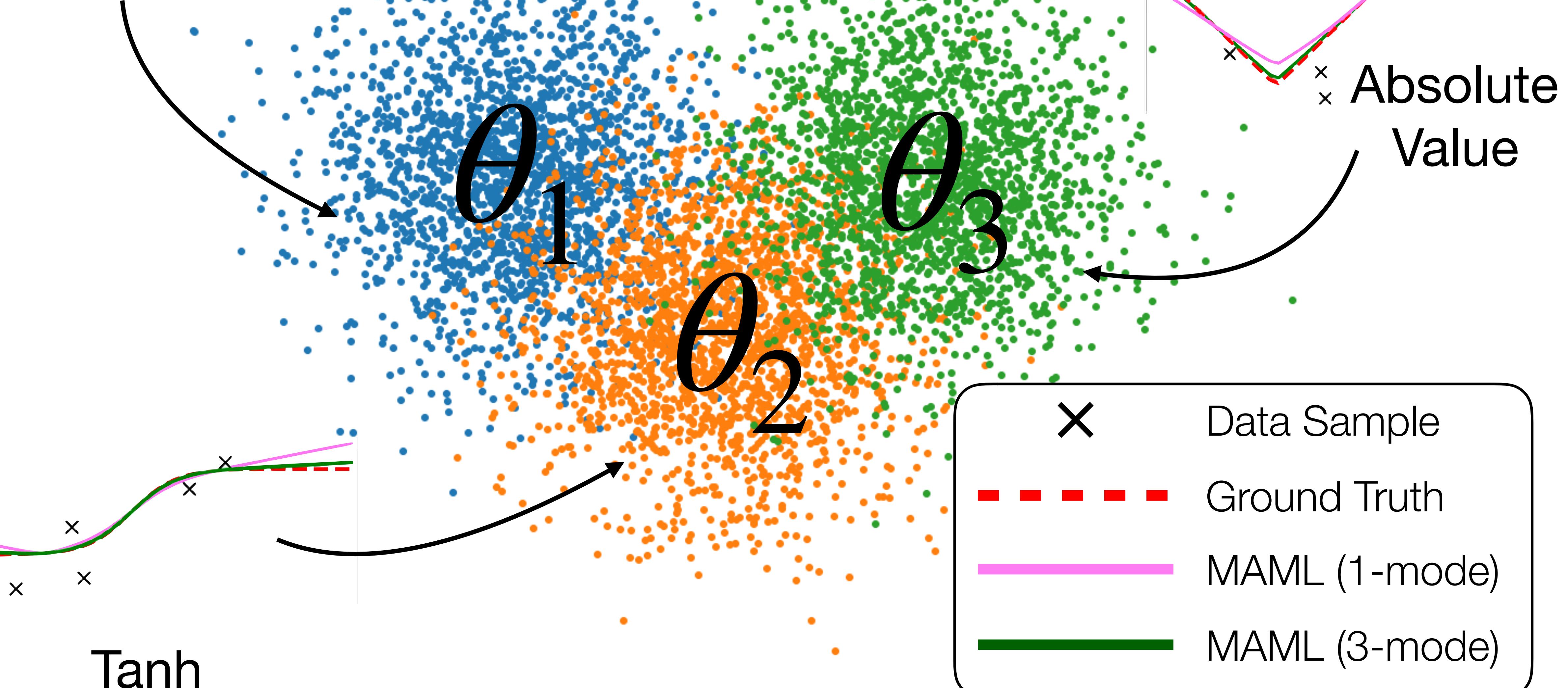
Sinusoid



Sinusoid

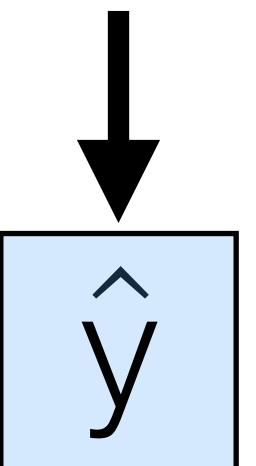
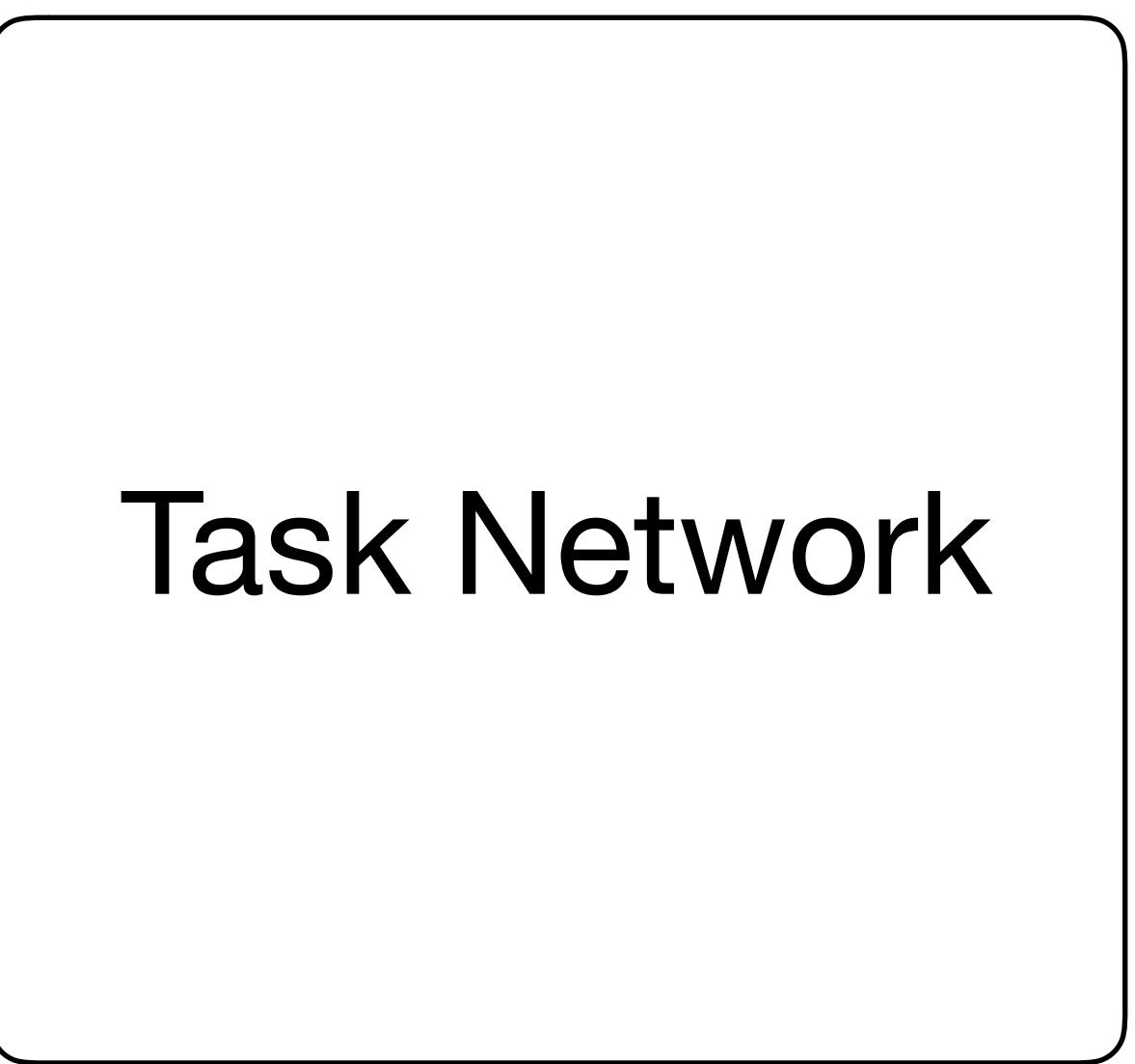
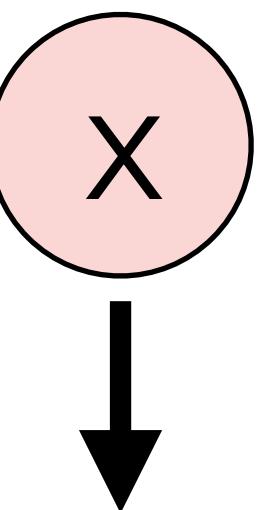


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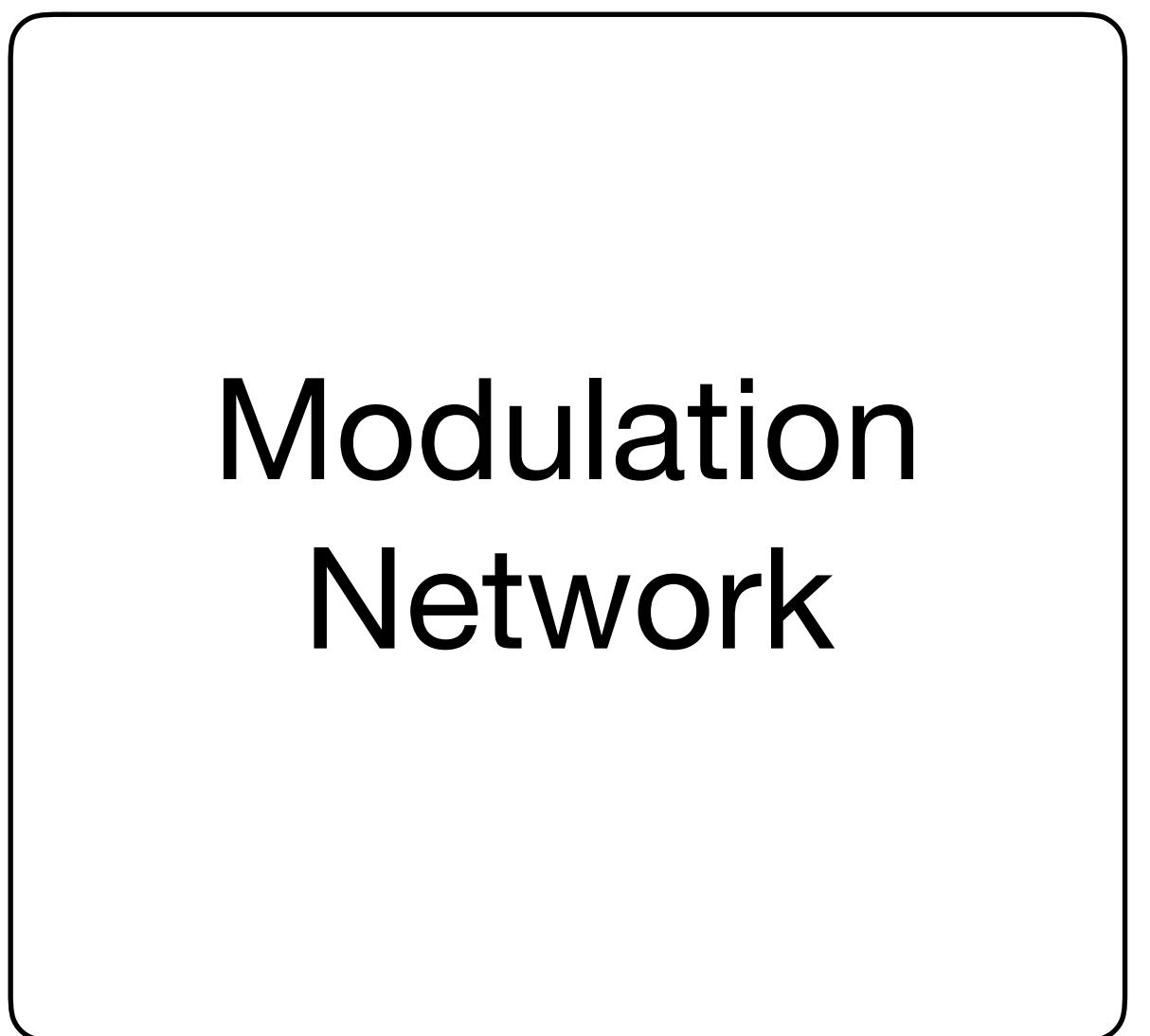
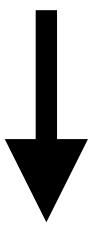


Tanh

Absolute
Value

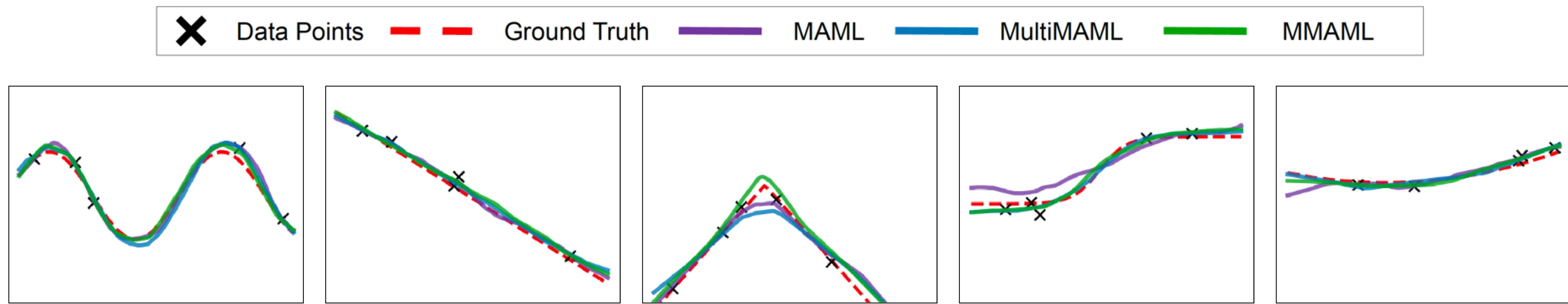


$\left\{ \begin{array}{c} \text{x} \\ \text{y} \end{array} \right\}$ Samples $\times K$

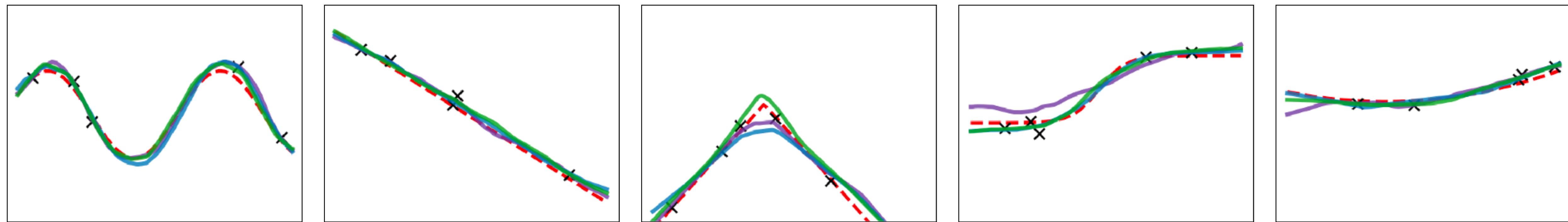


$\hat{\text{y}}$

Evaluations: Regression



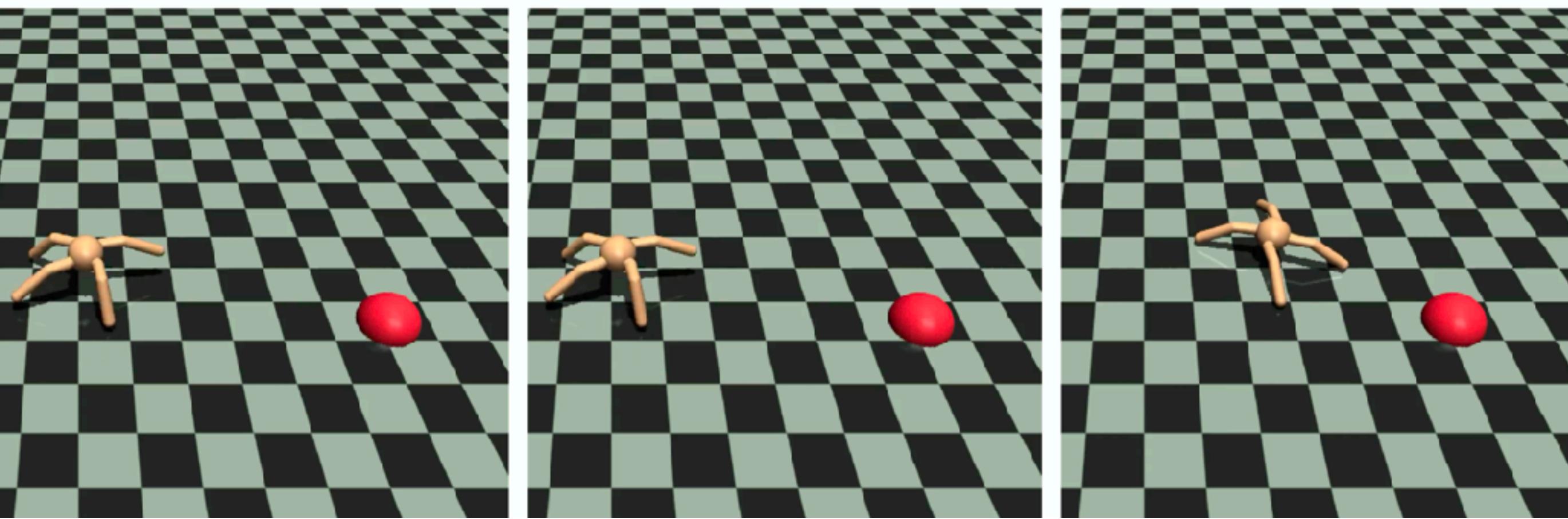
Evaluations: Regression



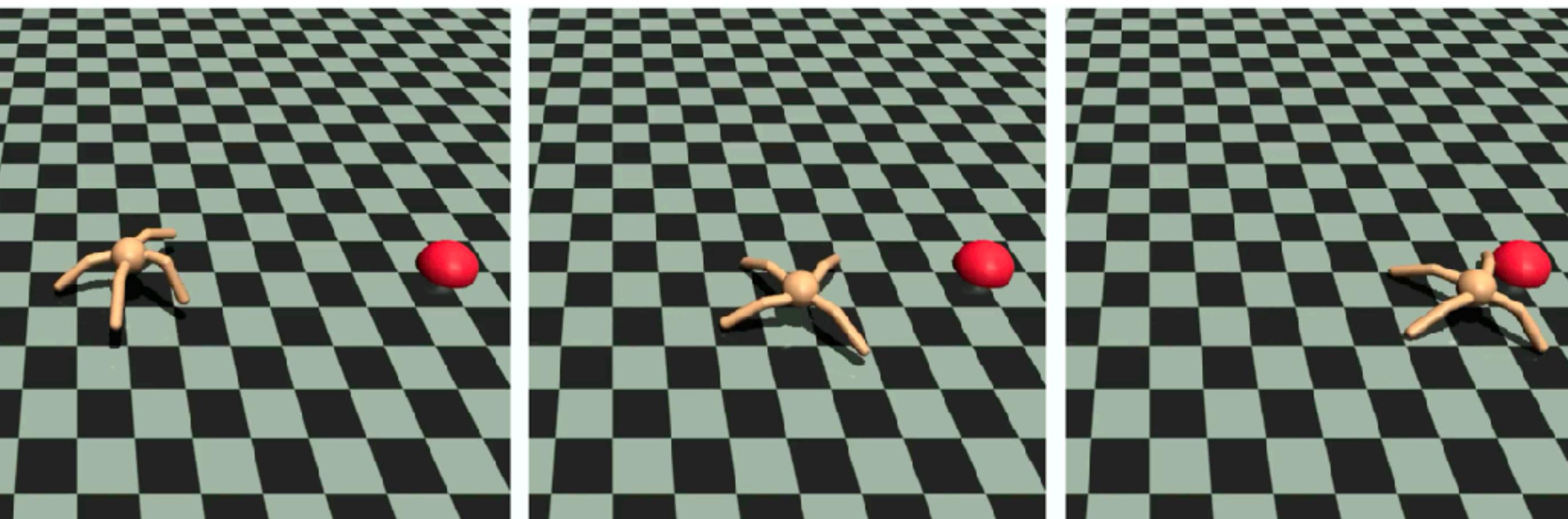
MAML	1.668
Ours	0.868

Evaluations: Reinforcement Learning

ProMP

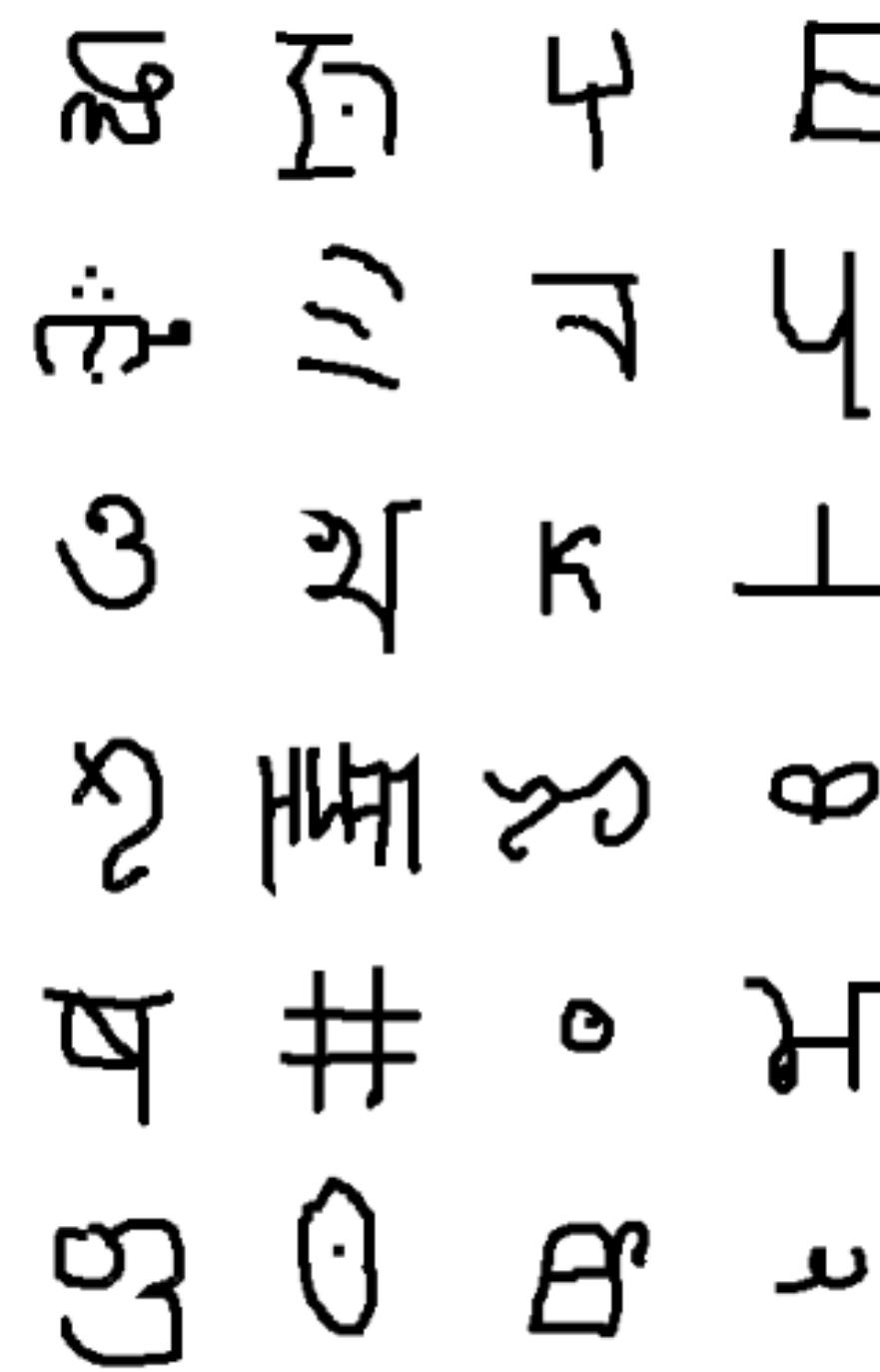


Ours

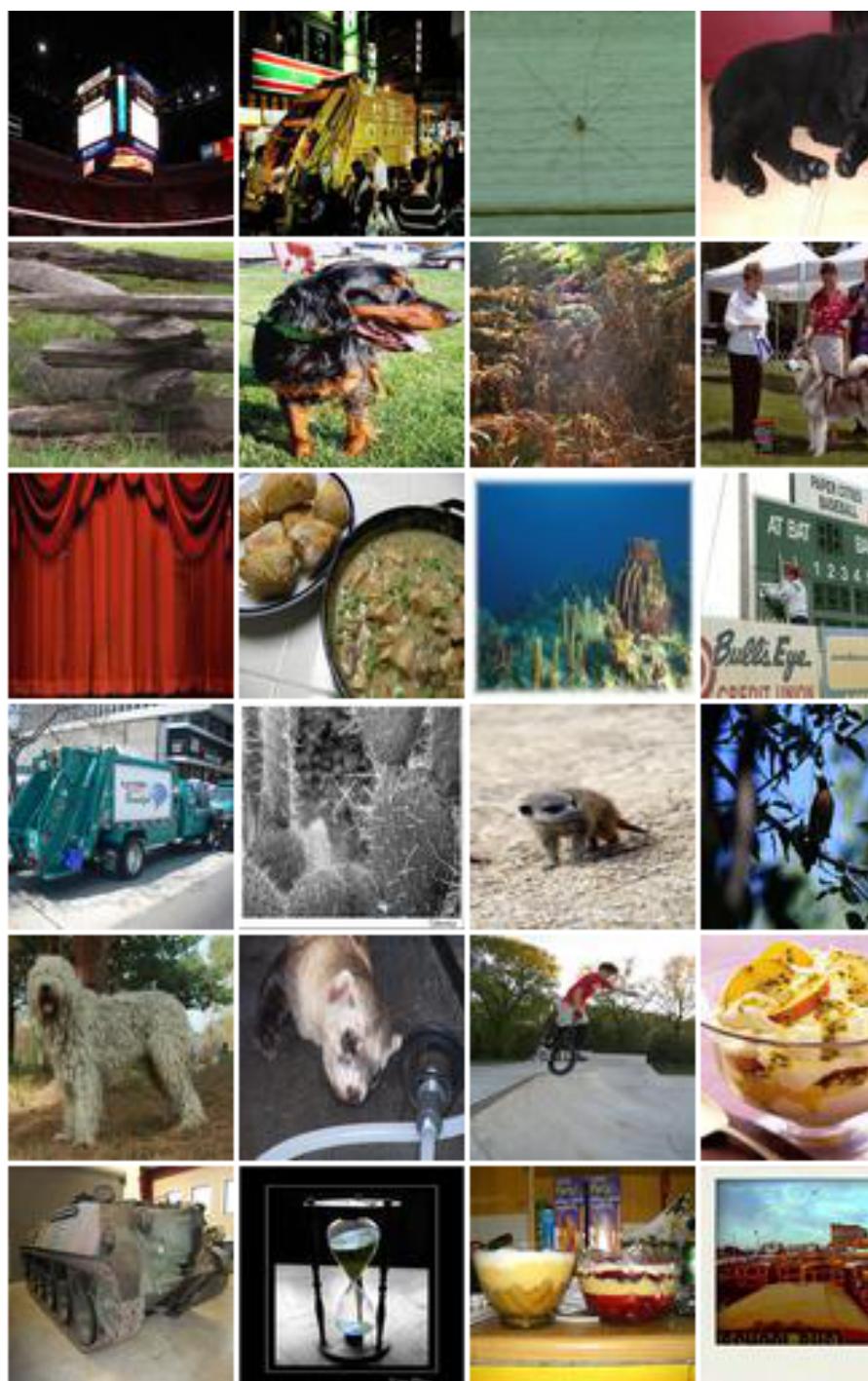


Evaluations: Classification

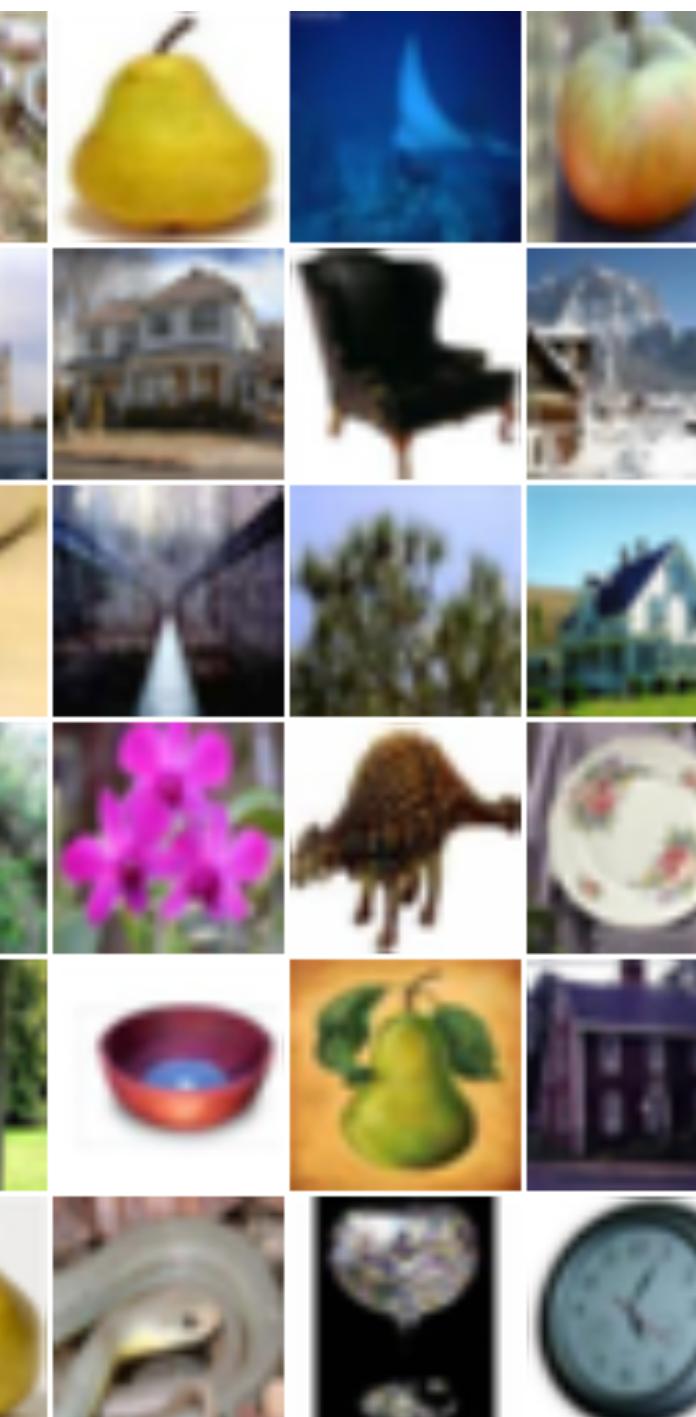
(a) Omniglot



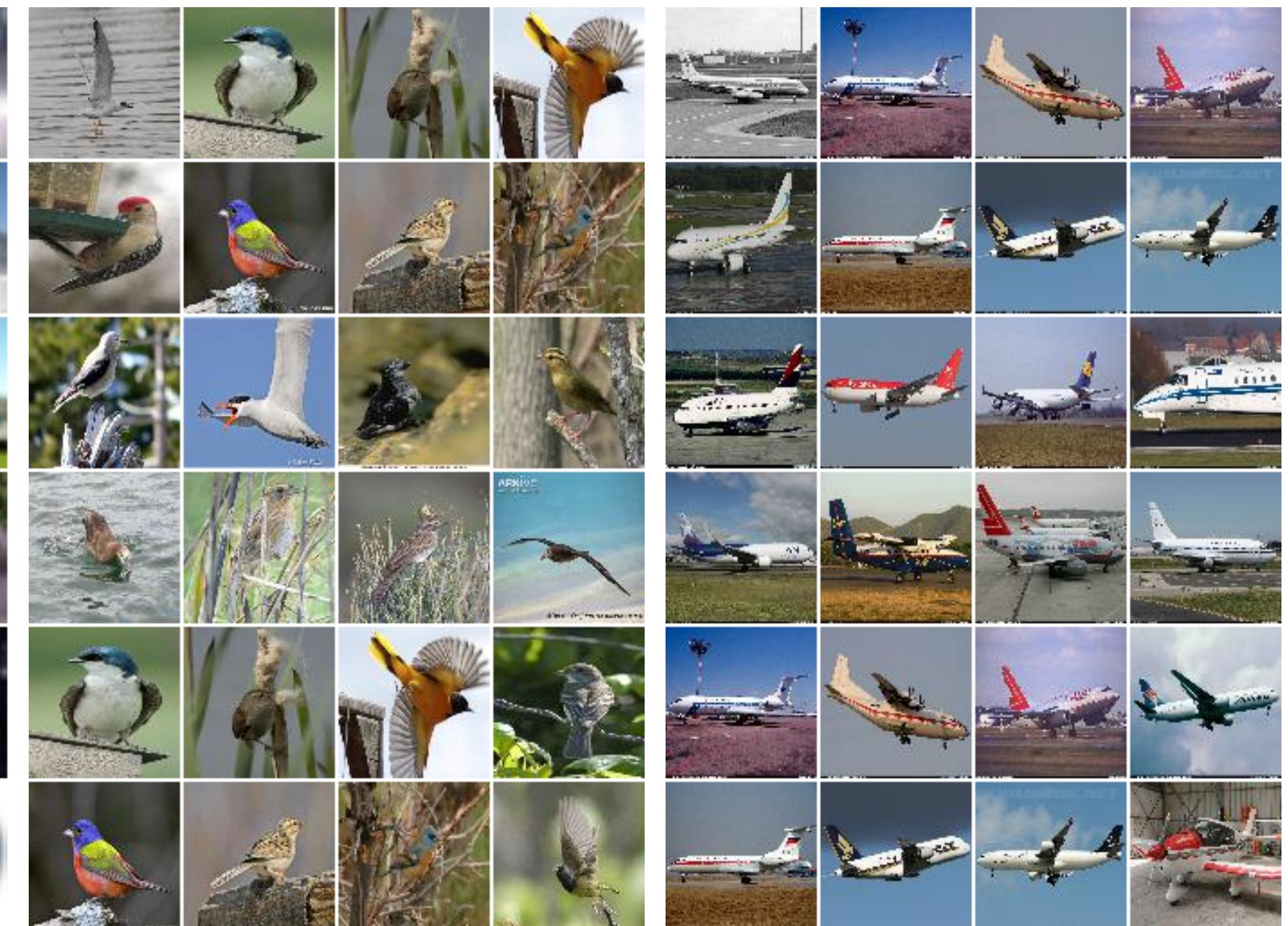
(b) Mini-ImageNet



(c) FC100



(d) CUB

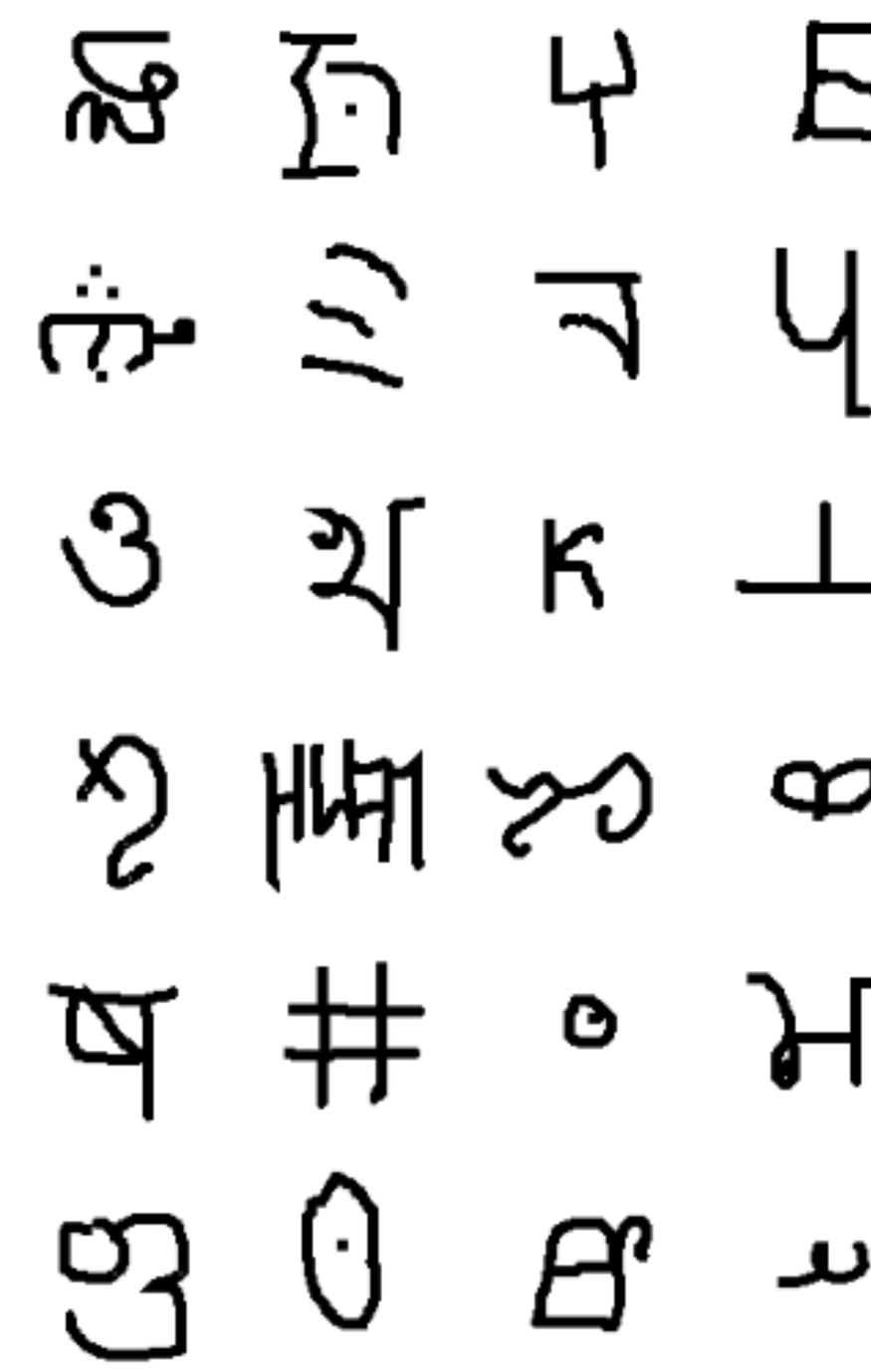


(e) Aircraft

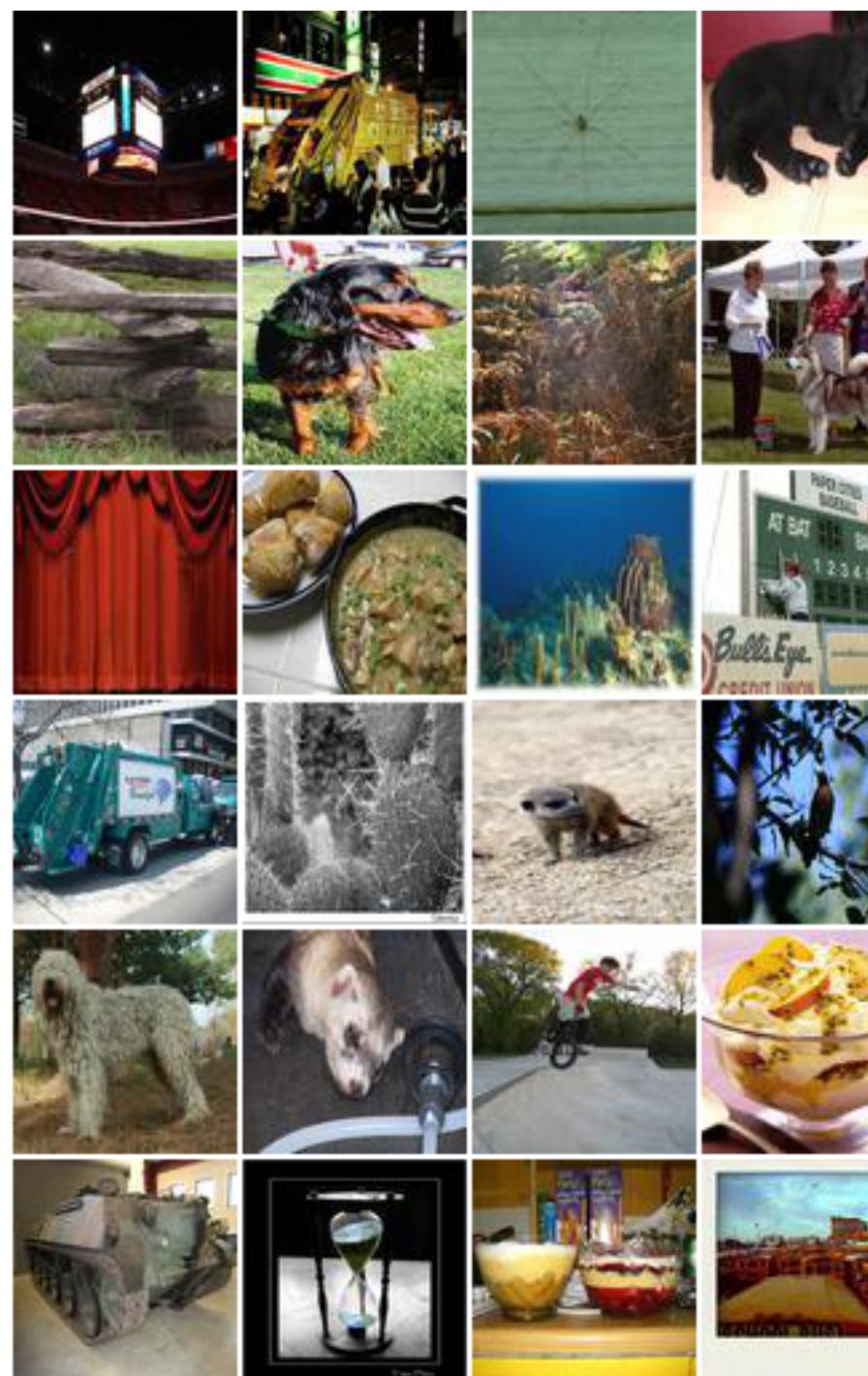


Evaluations: Classification

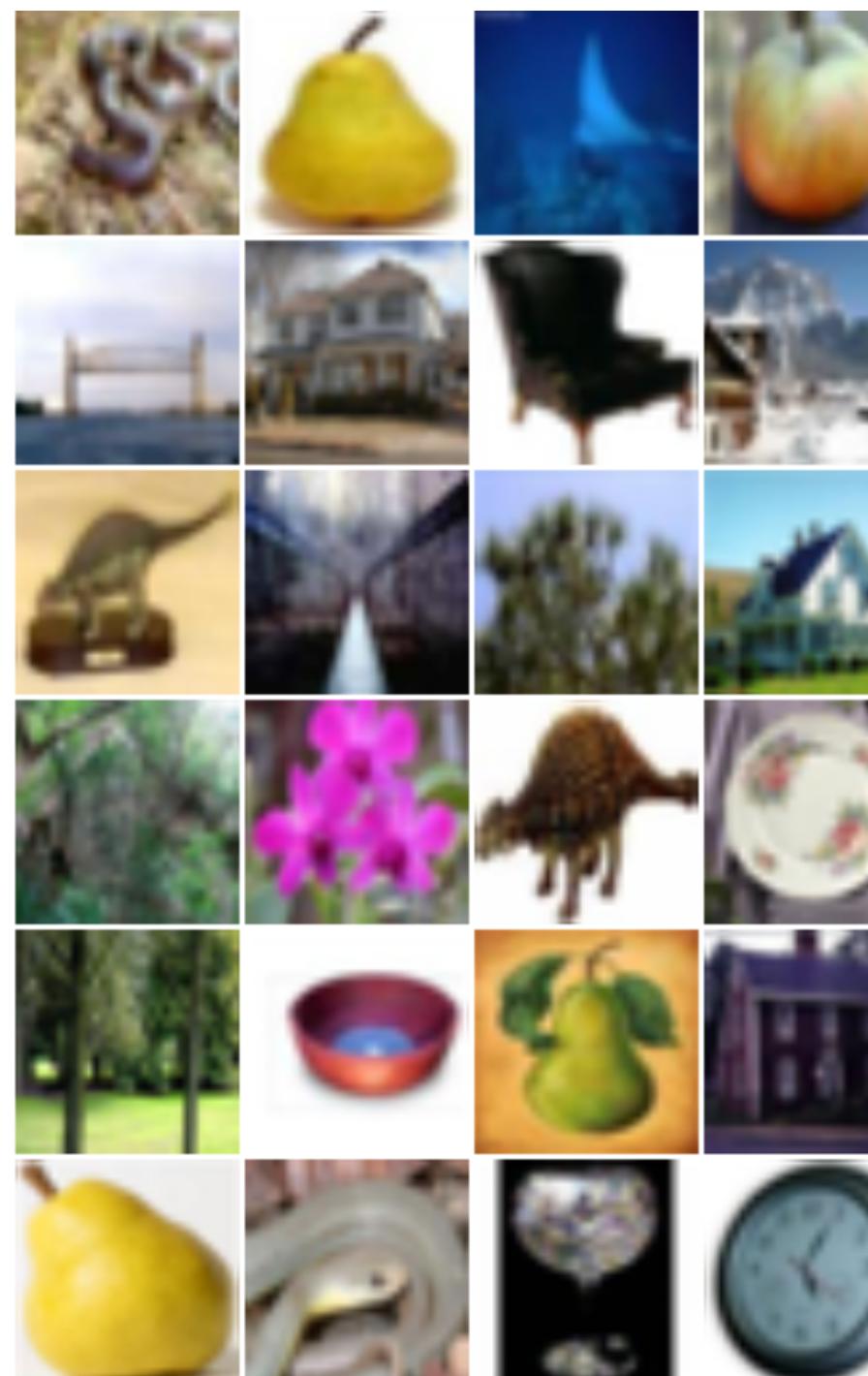
(a) Omniglot



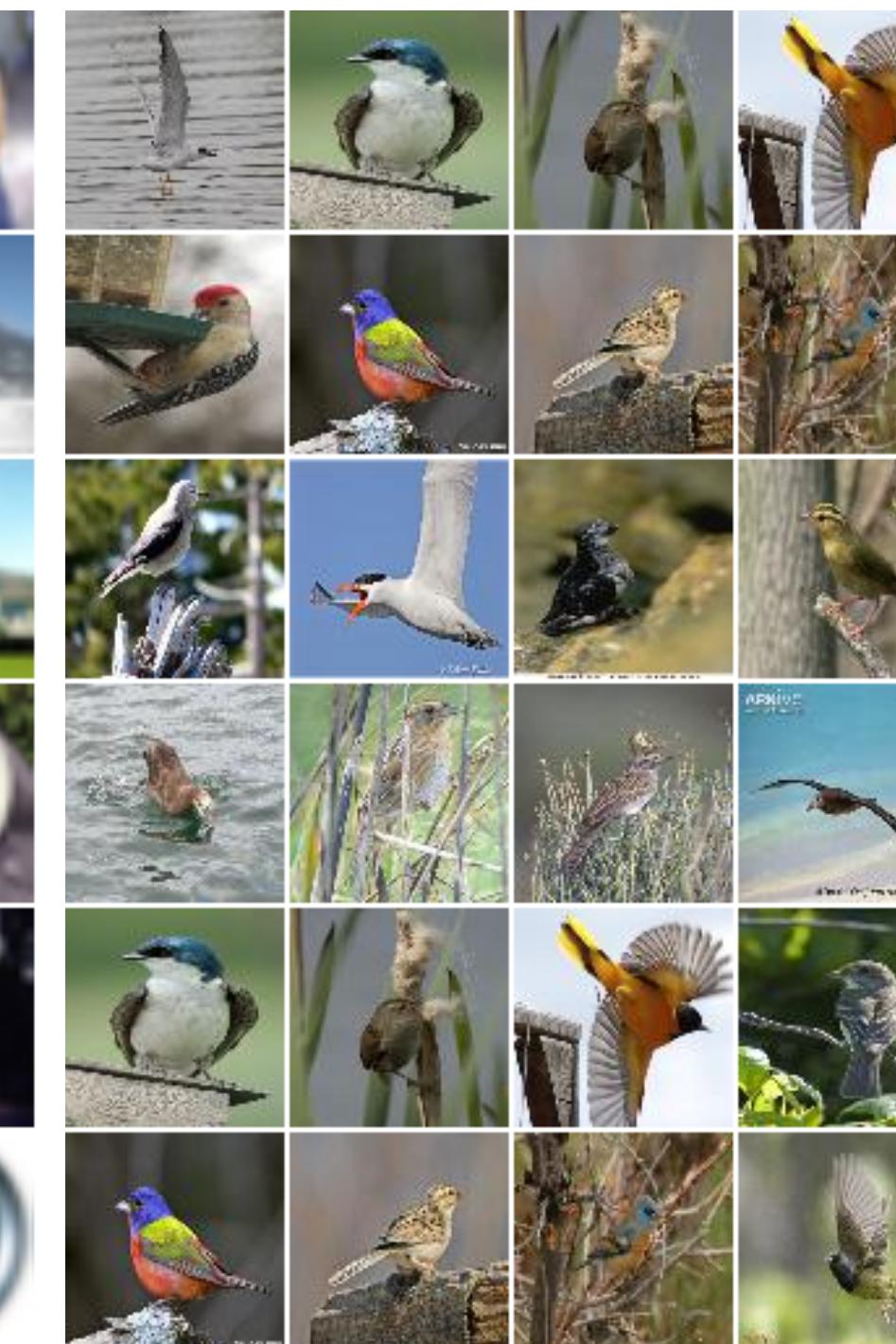
(b) Mini-ImageNet



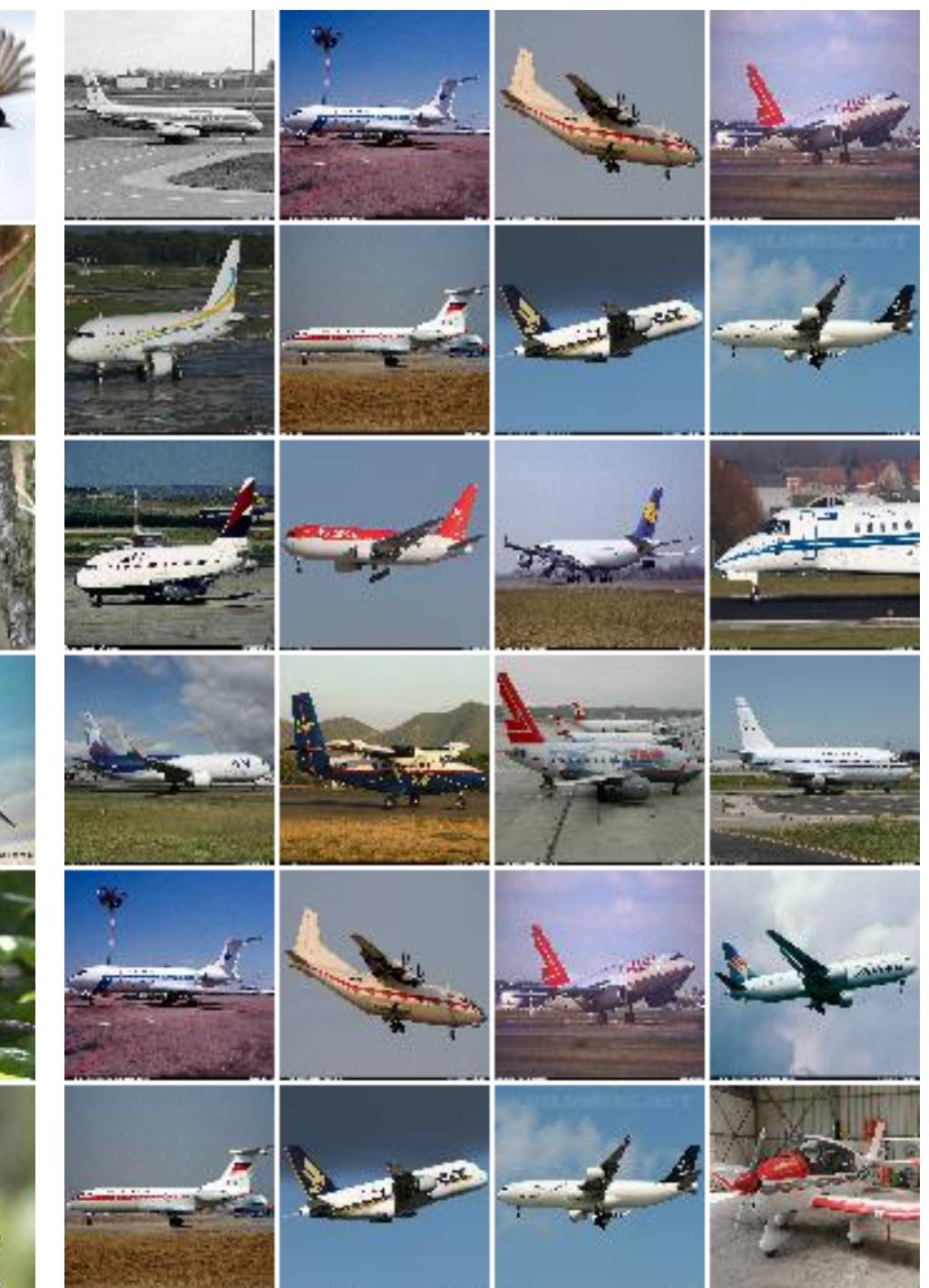
(c) FC100



(d) CUB



(e) Aircraft



MAML	54.41%
Ours	60.83%

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Hexiang Hu



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