

05:00 -- 07:00 PM @ East Exhibition Hall B + C #31

# Multimodal Model Agnostic Meta-Learning via Task-Aware Modulation



**Risto Vuorio\***



**Shao-Hua Sun\***



**Hexiang Hu**

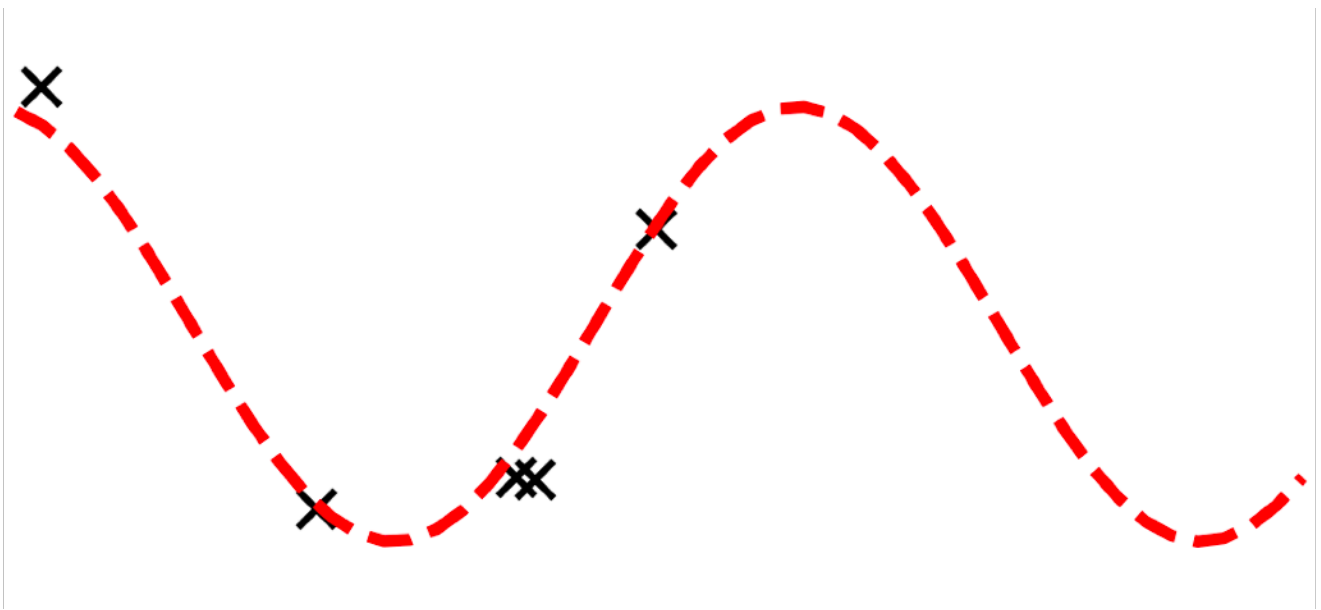


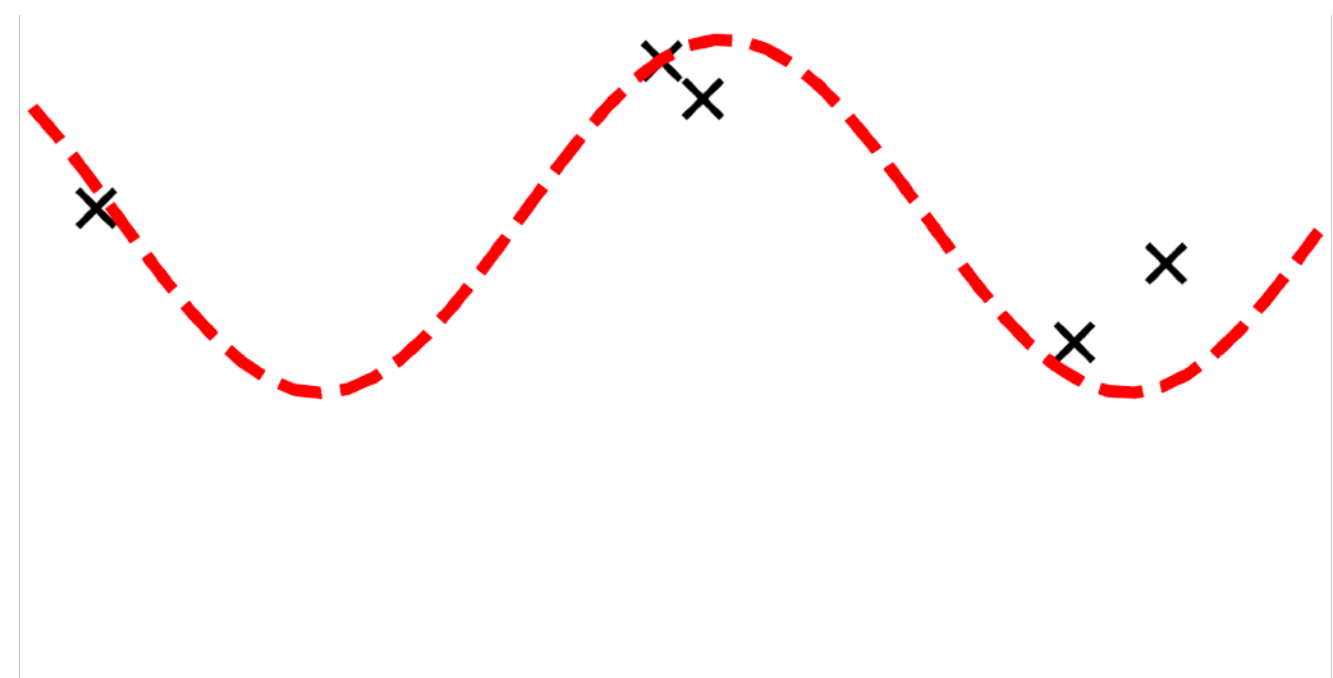
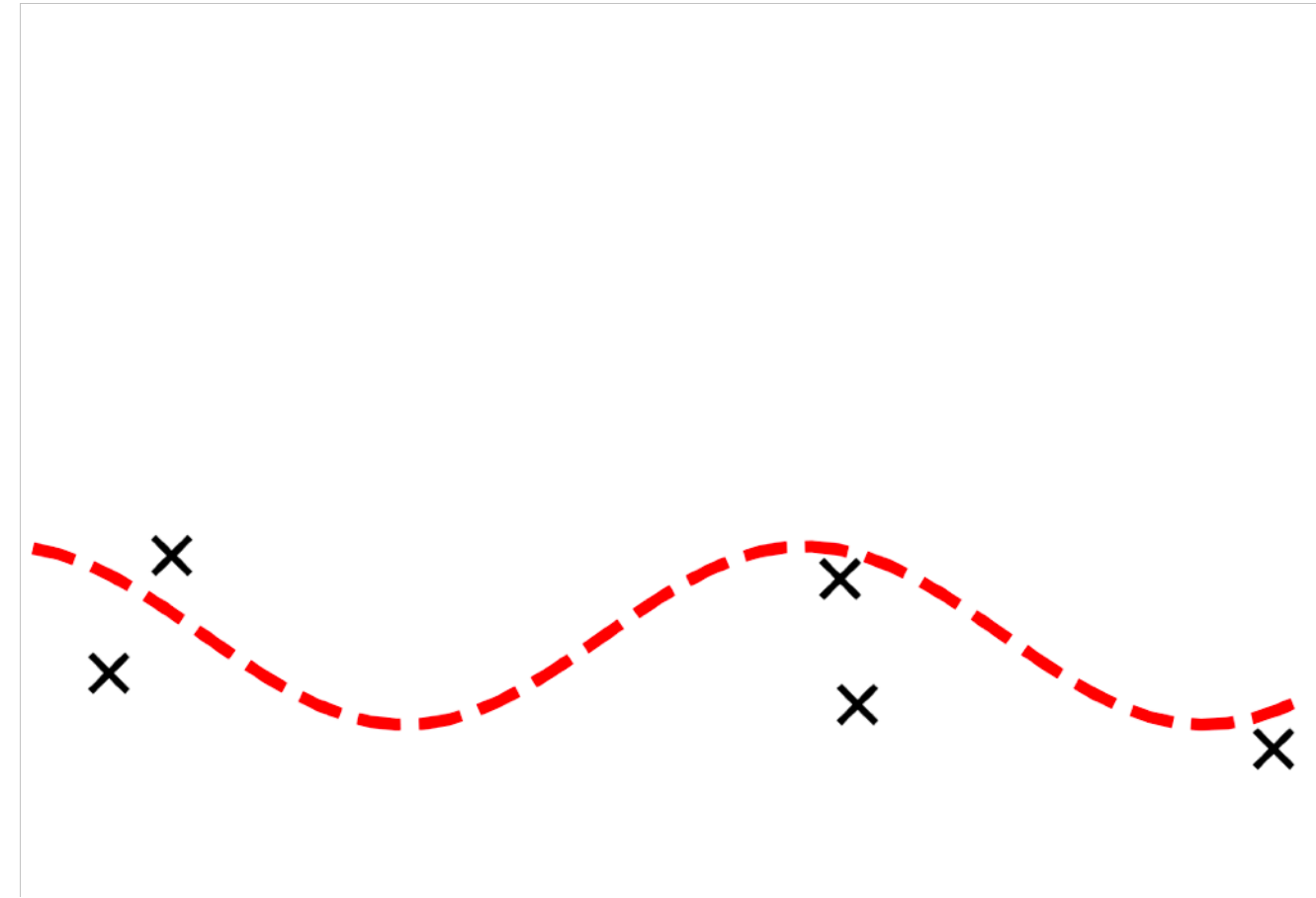
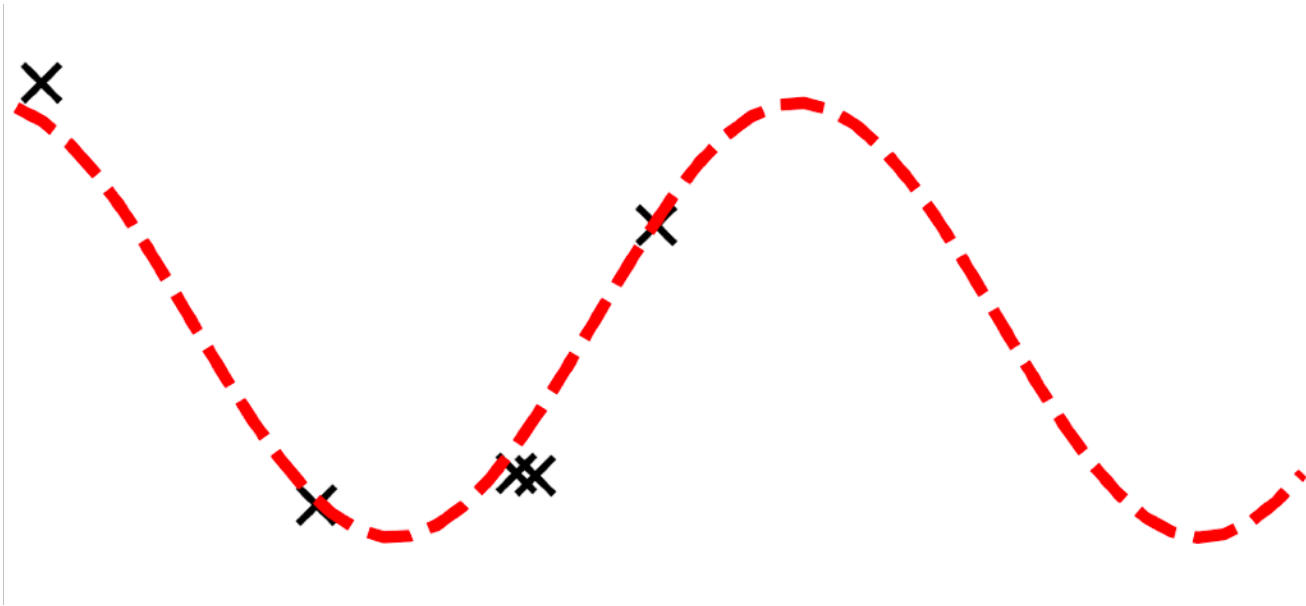
**Joseph J. Lim**



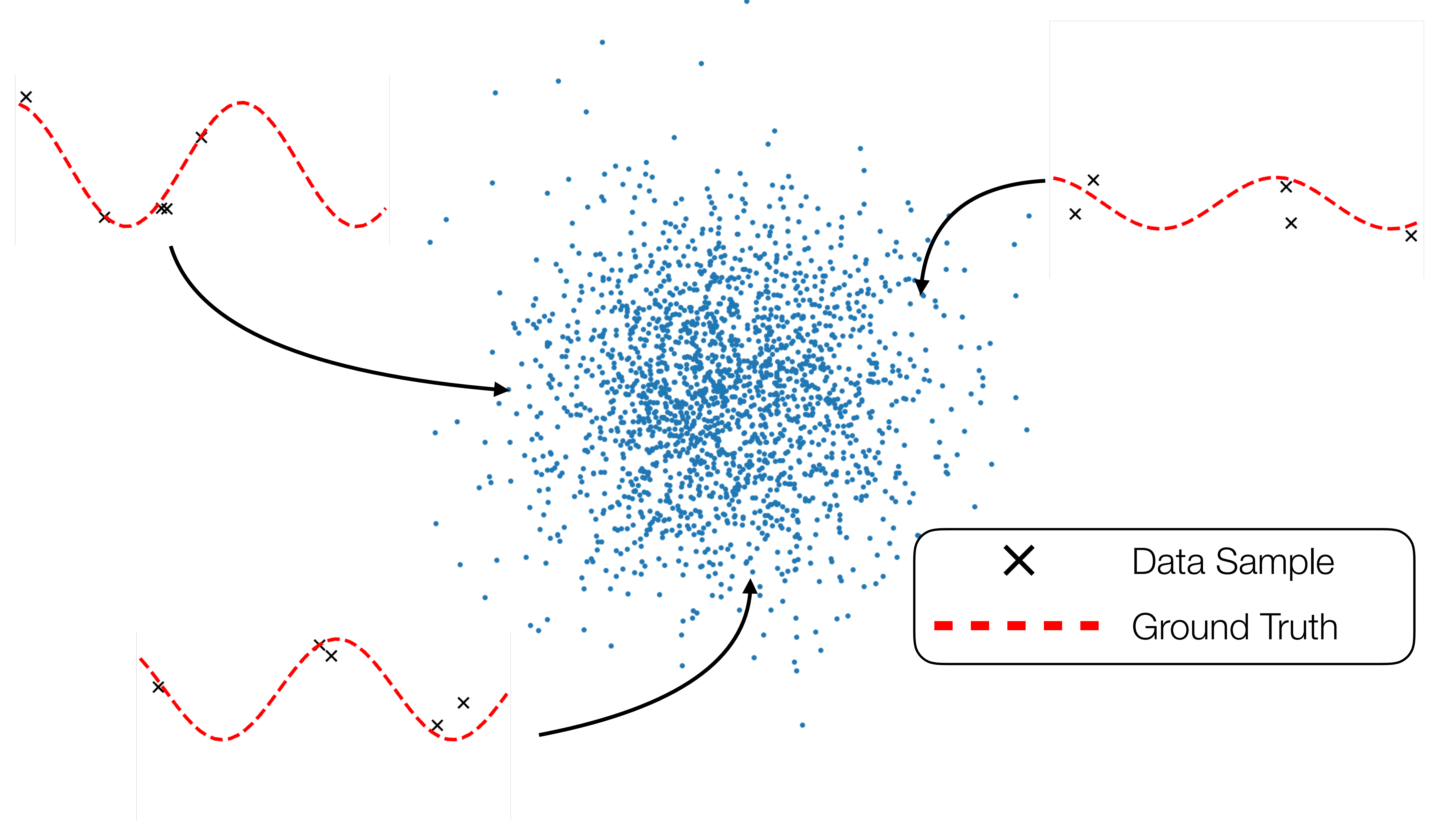




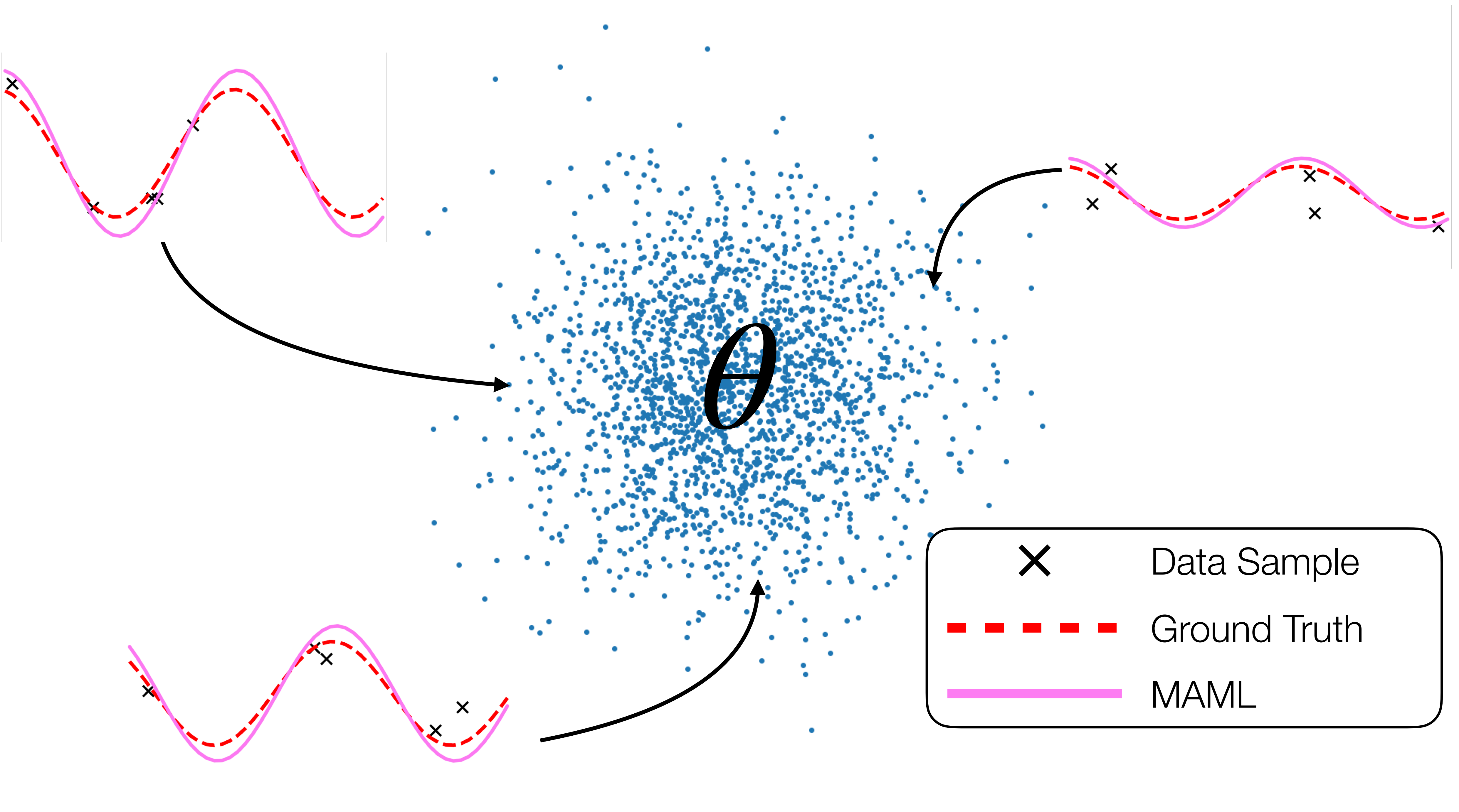






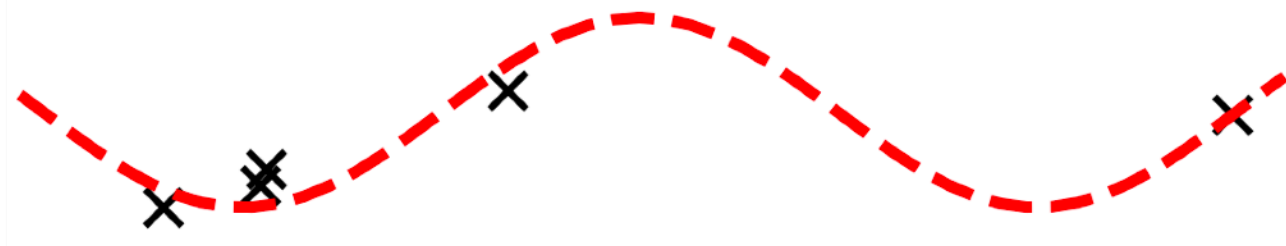




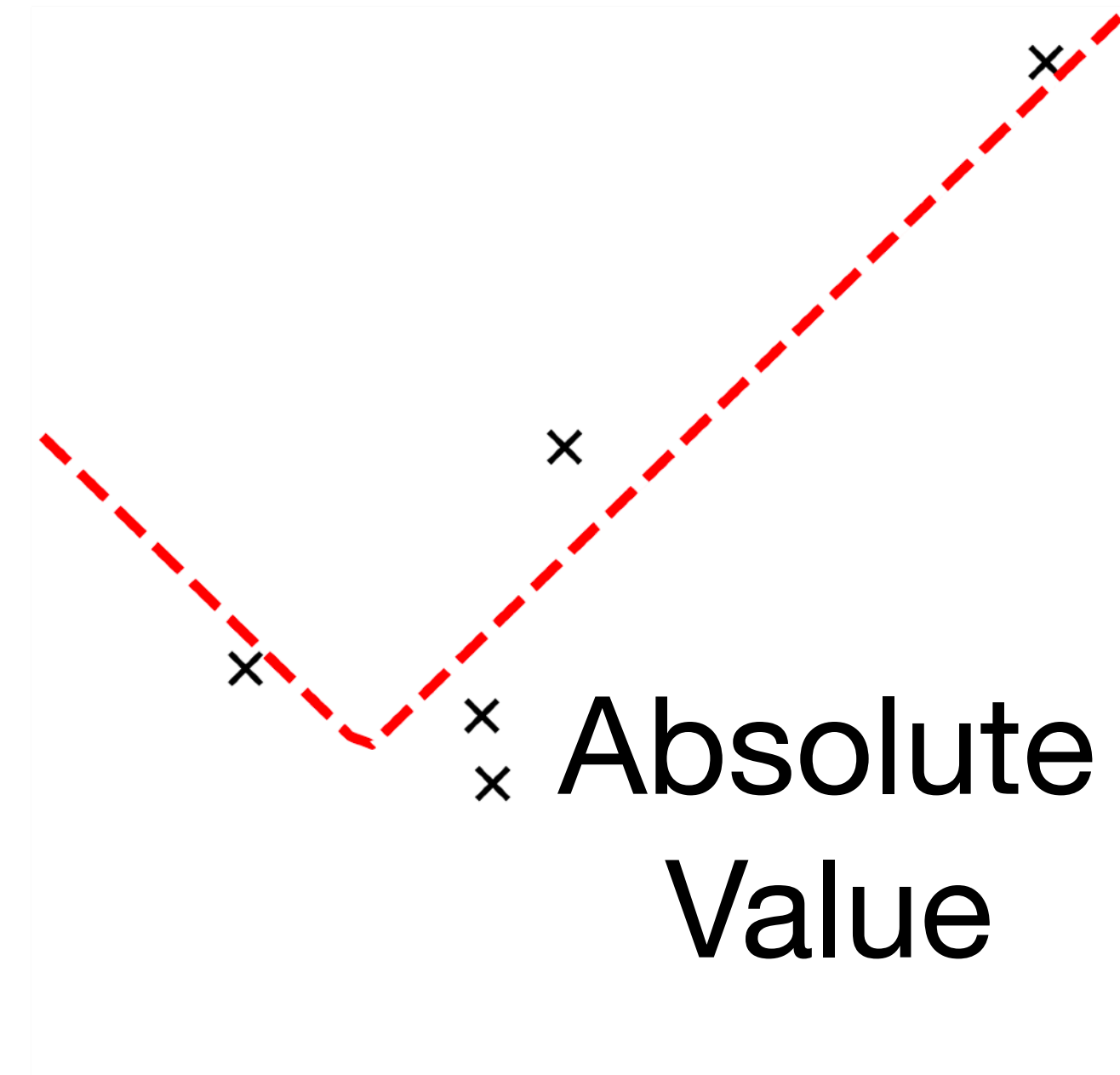




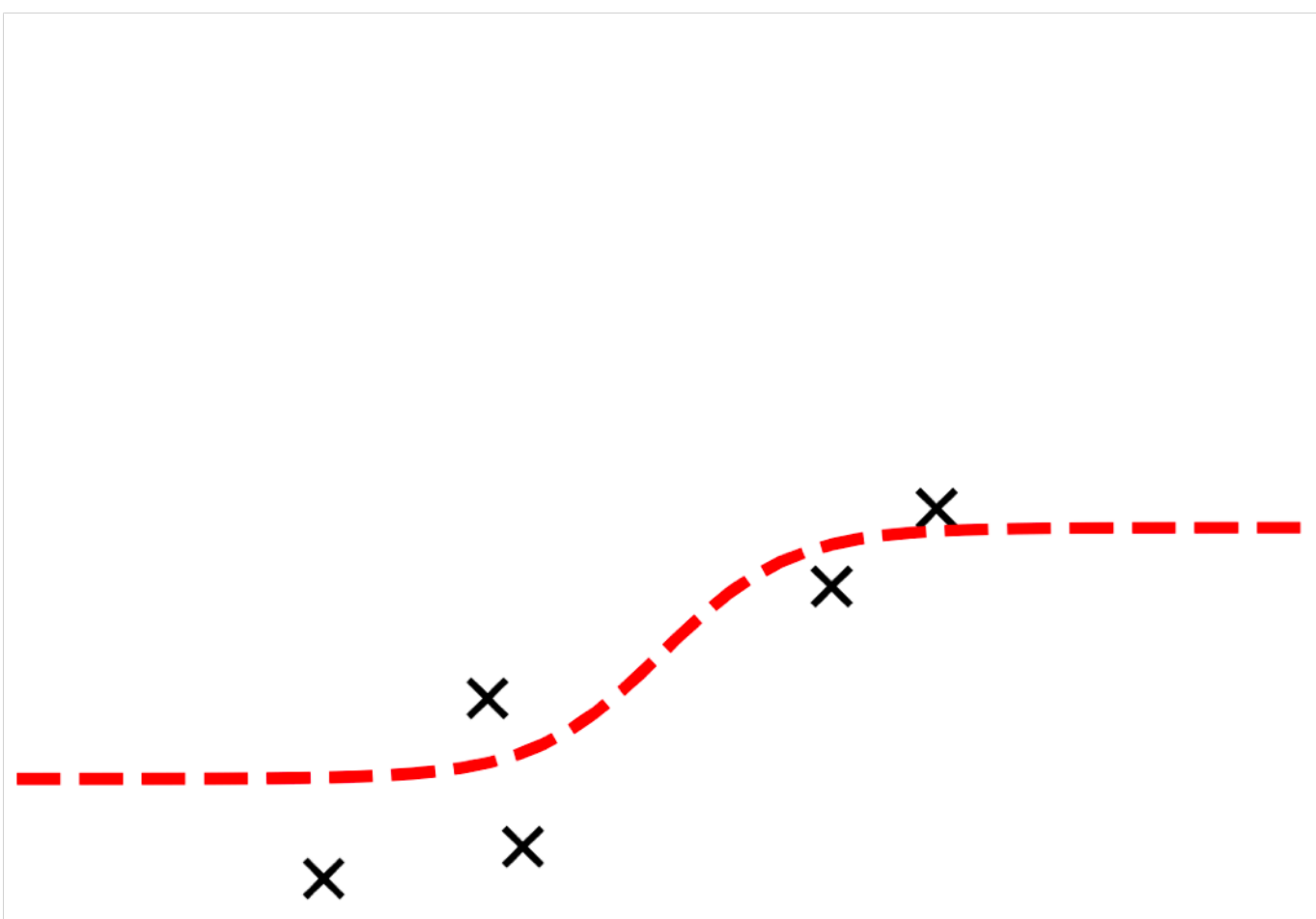
# Sinusoid



# Absolute Value



# Tanh



x

Data Sample

-----

Ground Truth

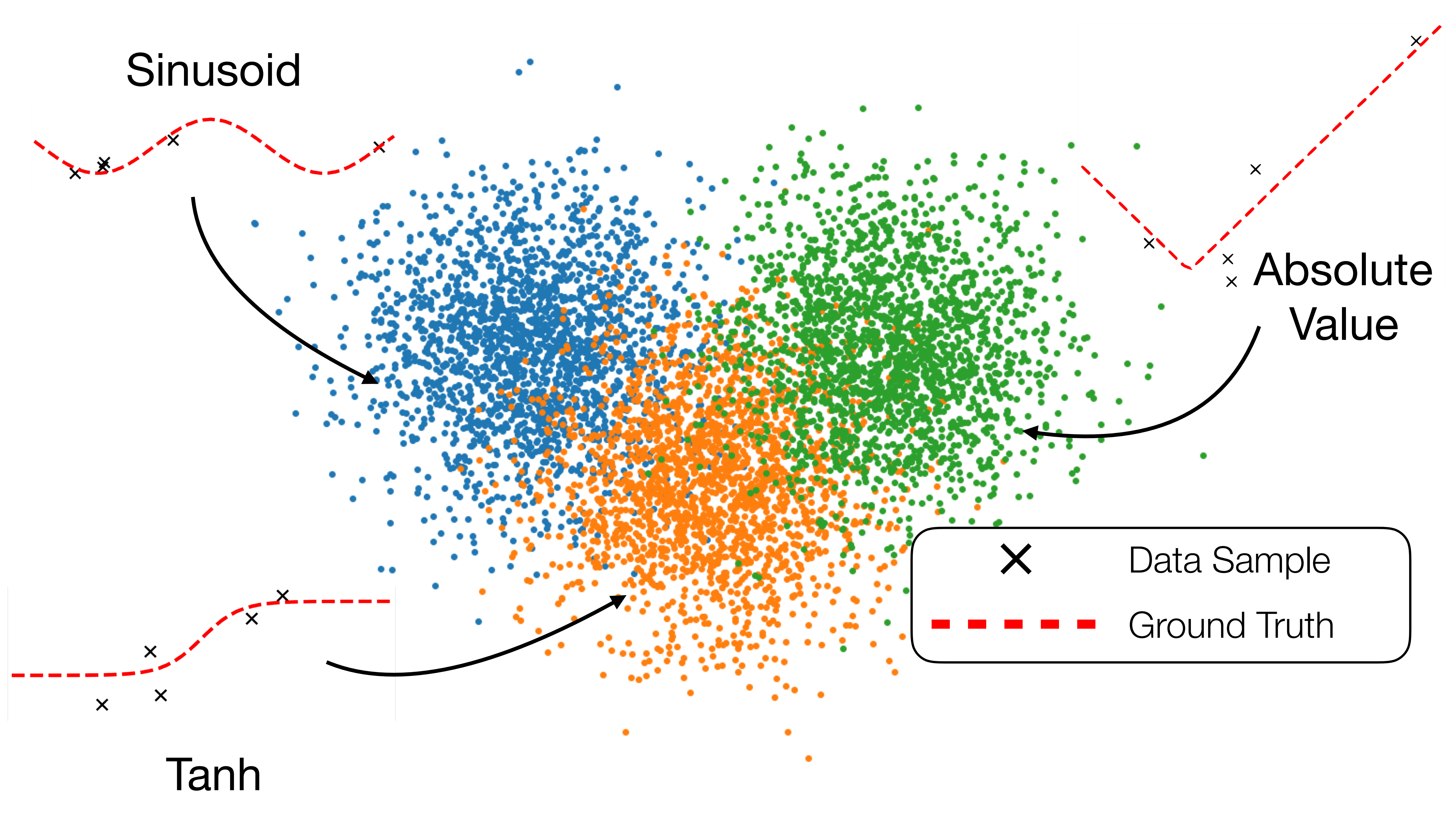


Sinusoid

Absolute Value

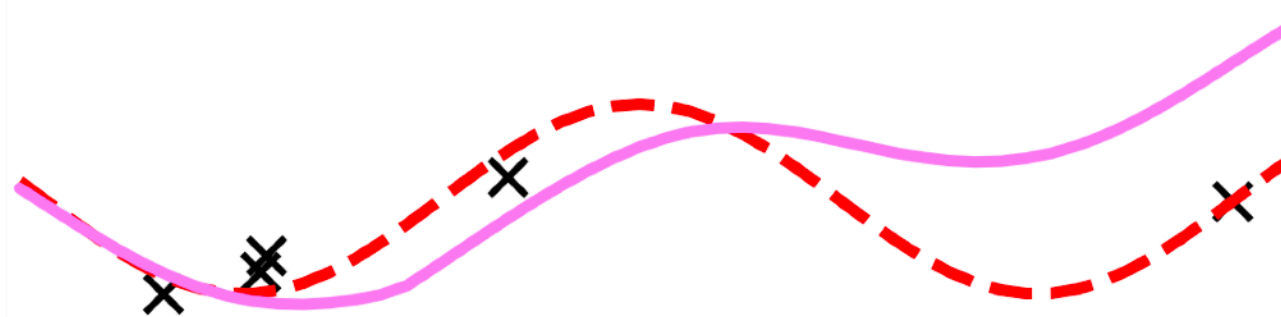
Tanh

× Data Sample  
- - - Ground Truth

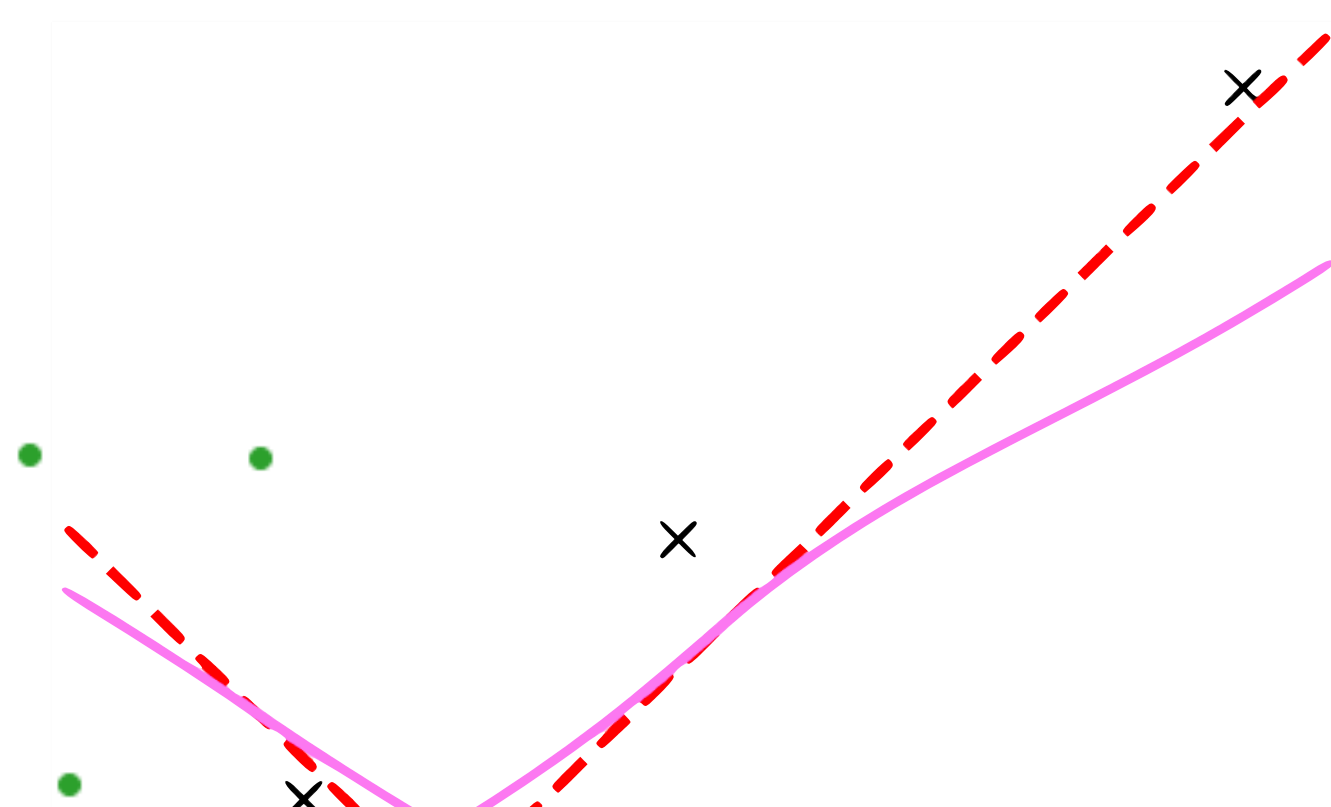




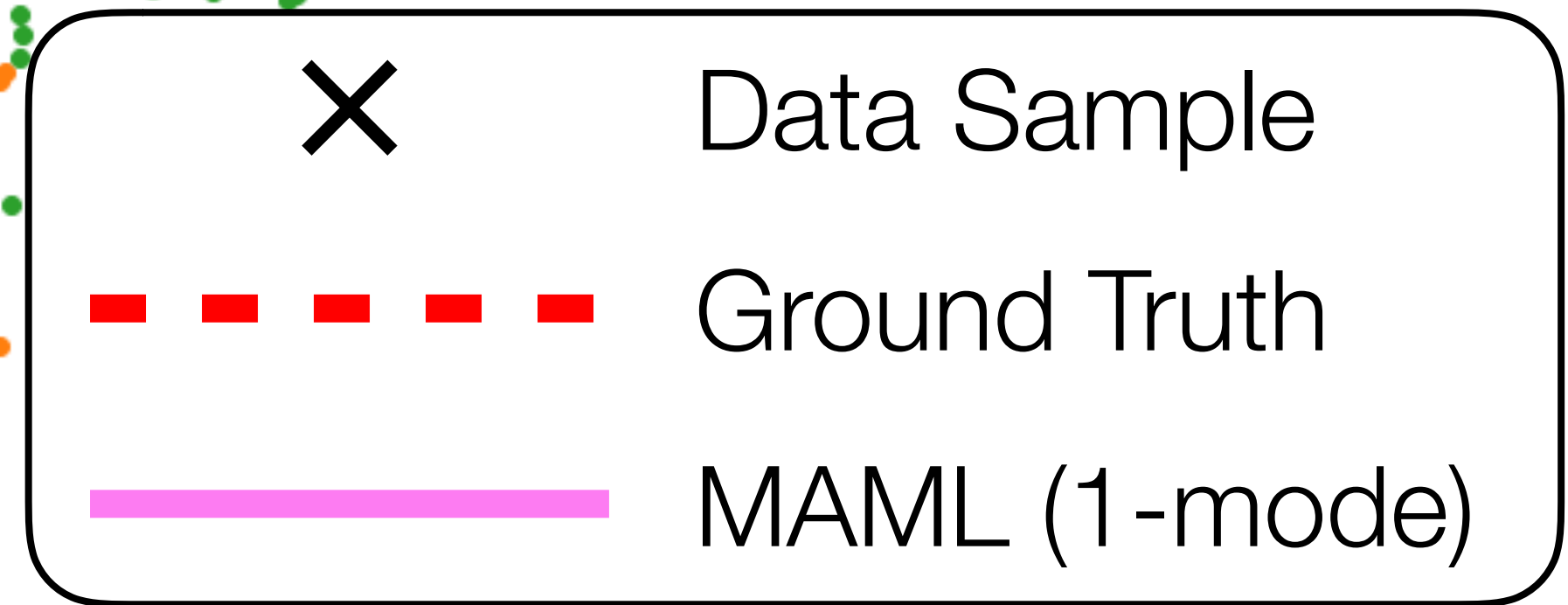
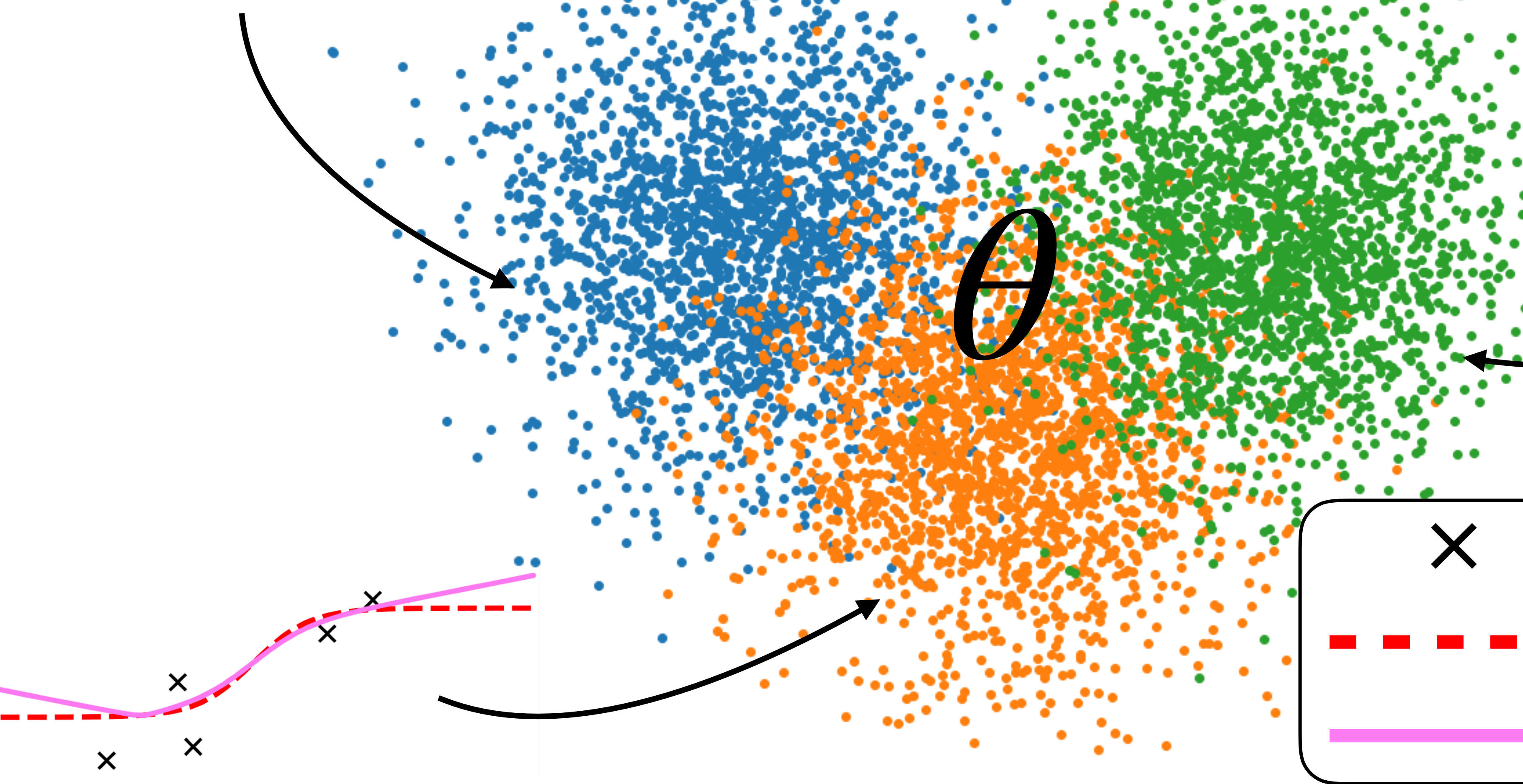
Sinusoid



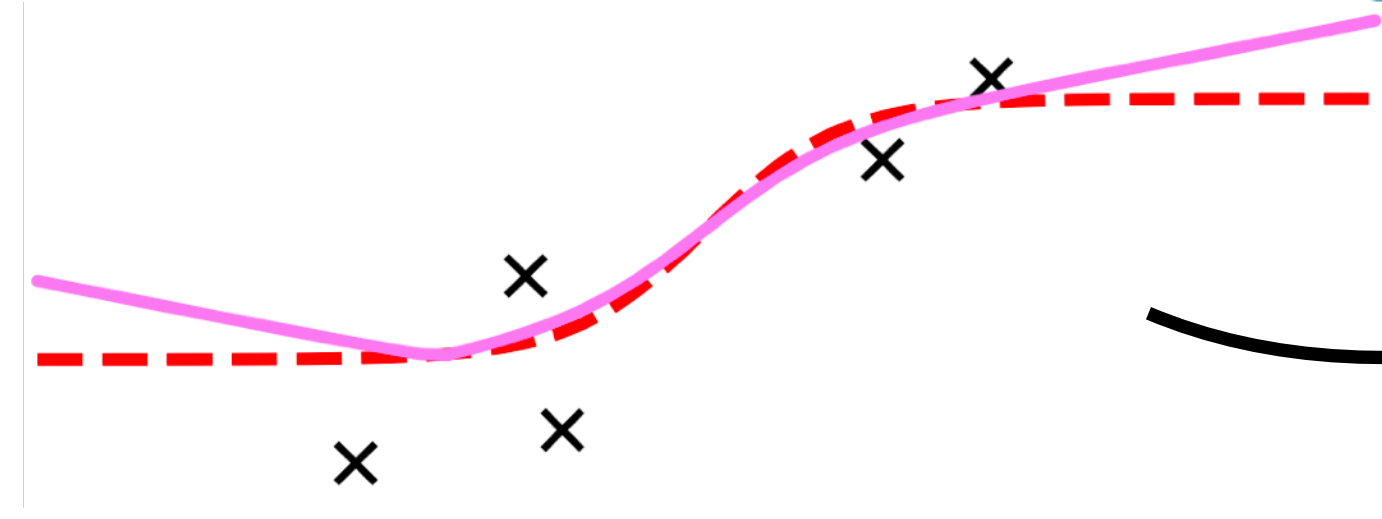
Absolute Value



$\theta$

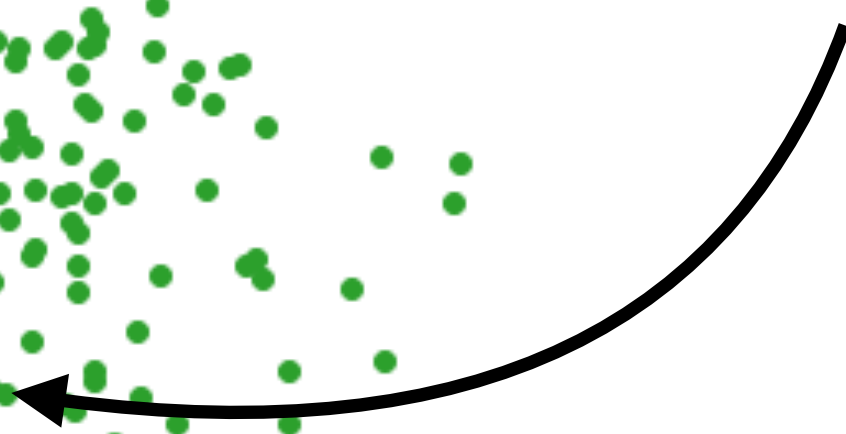
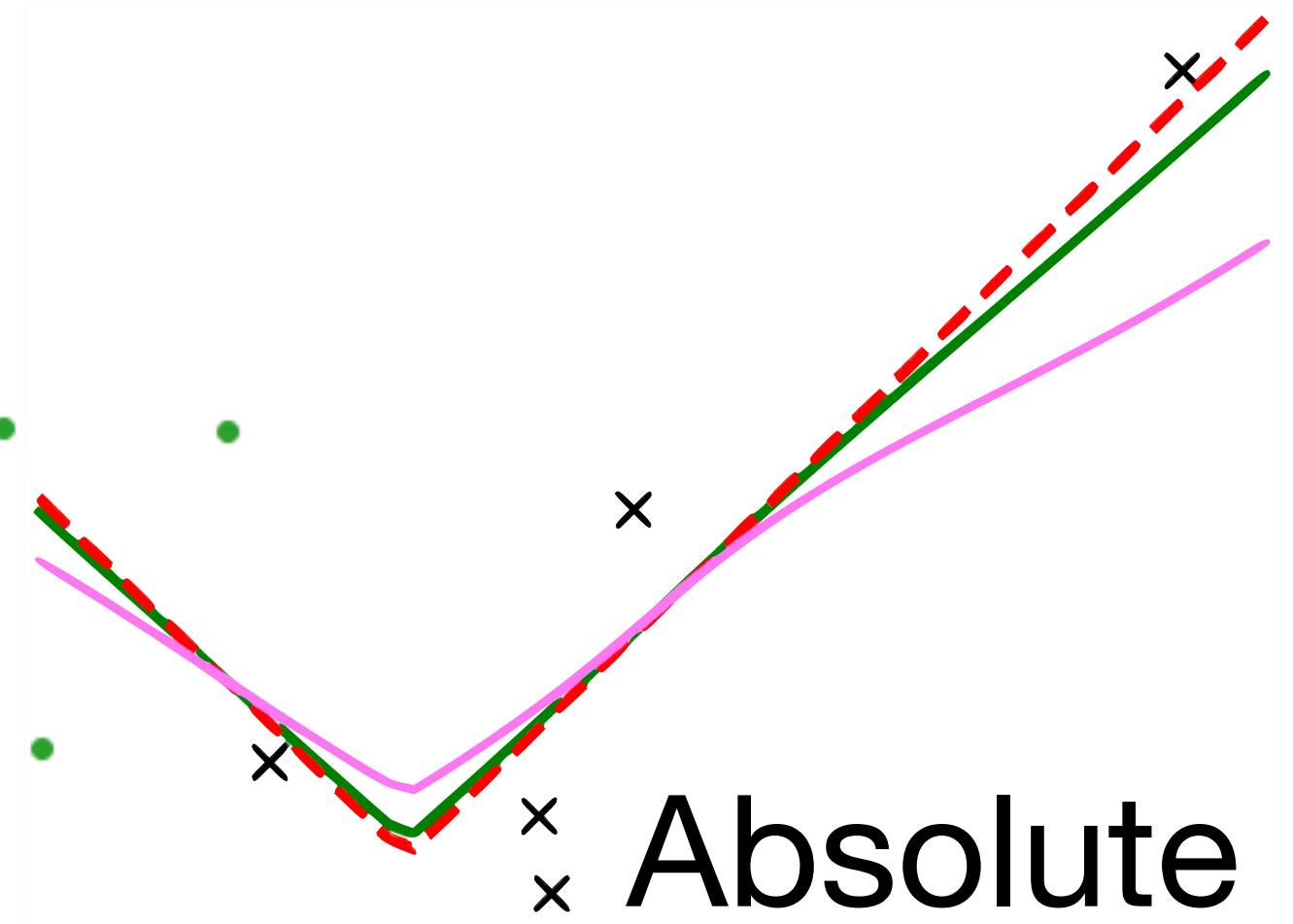
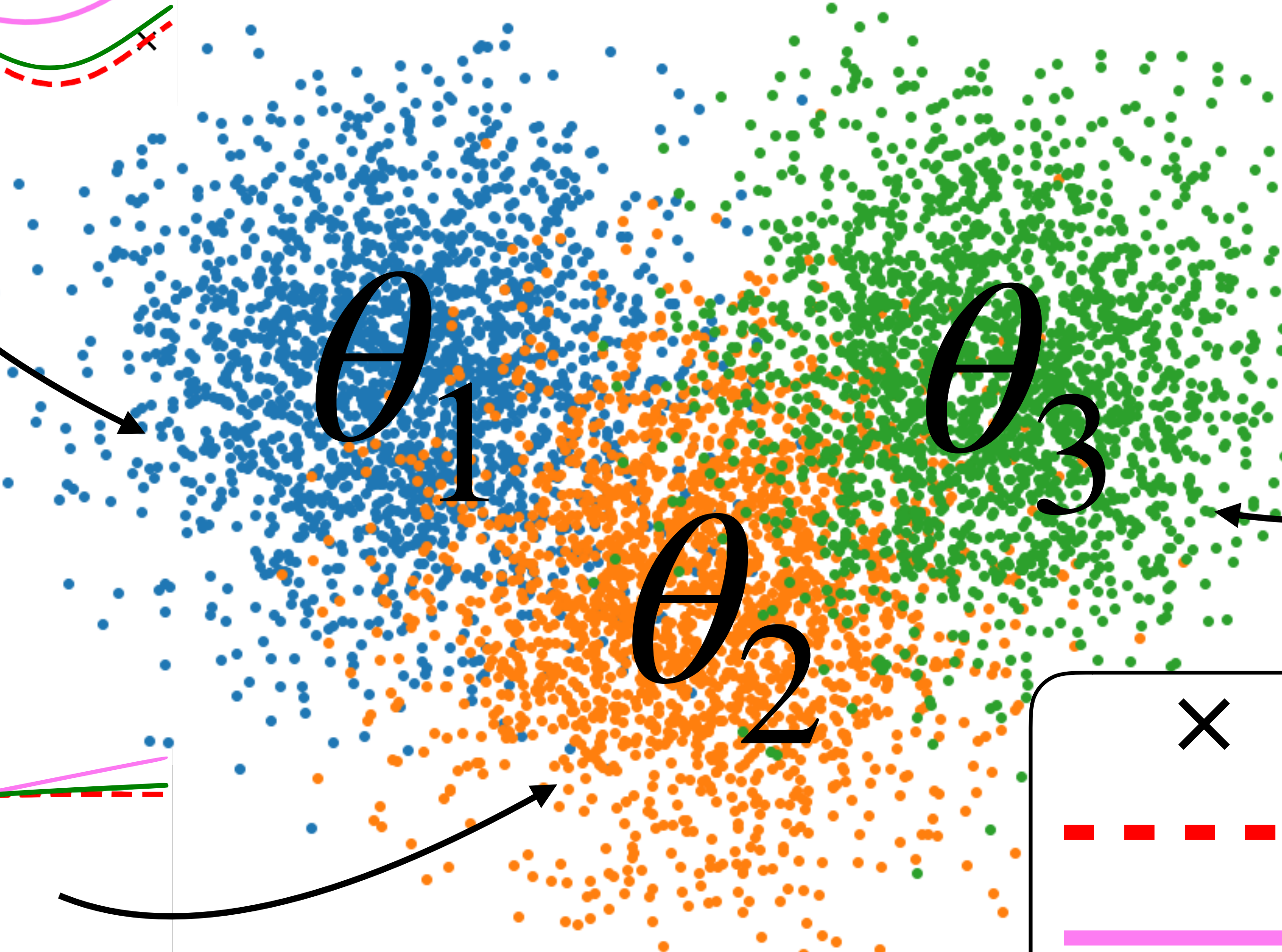
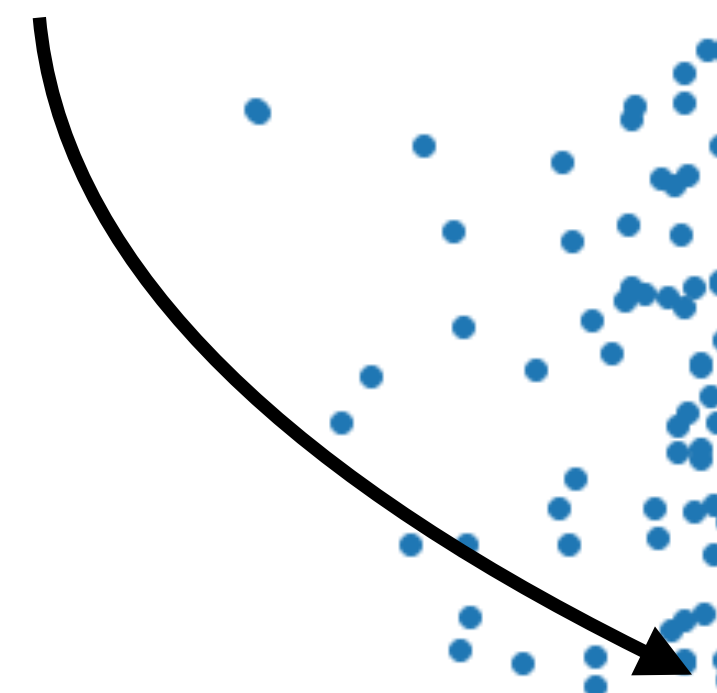
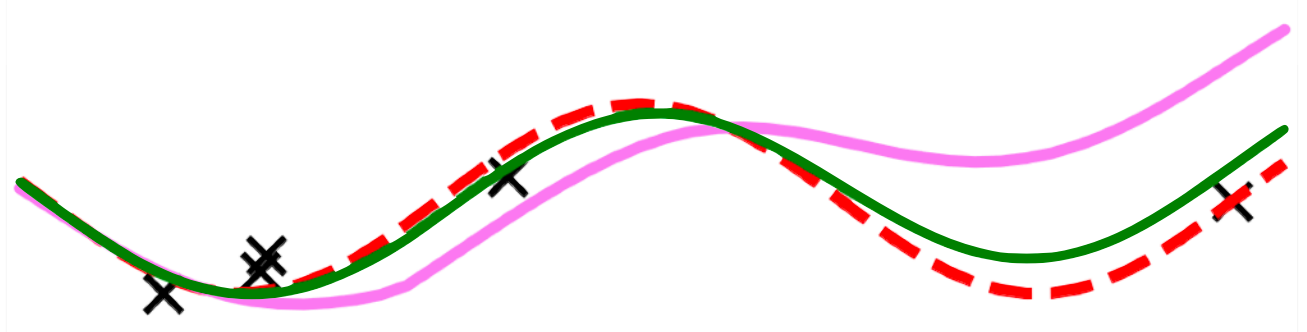


Tanh

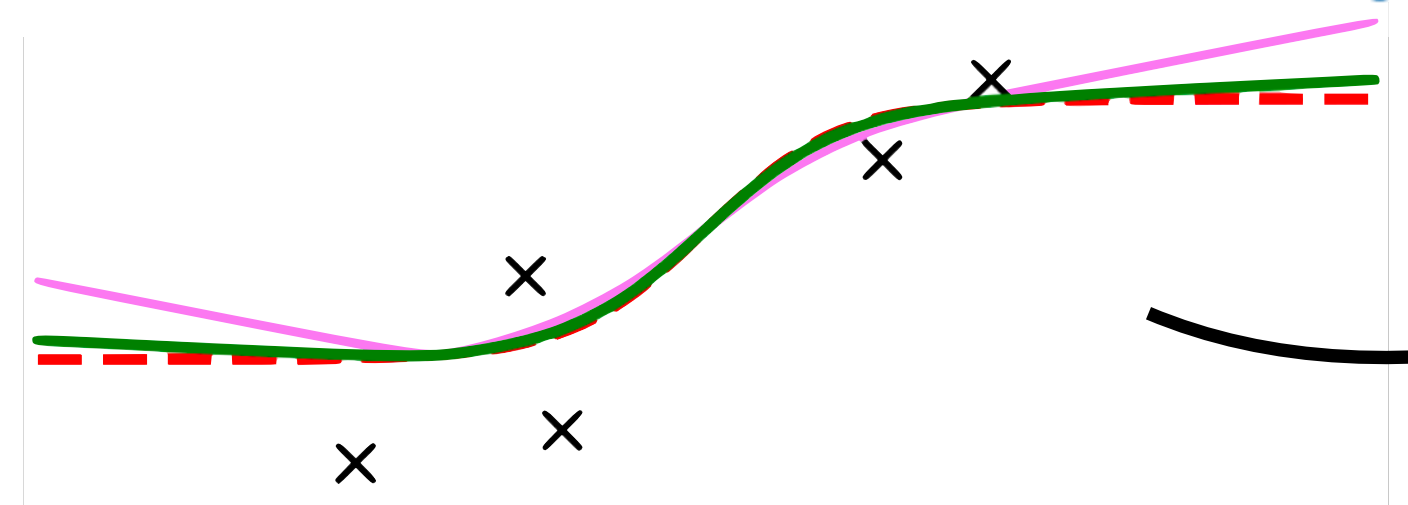




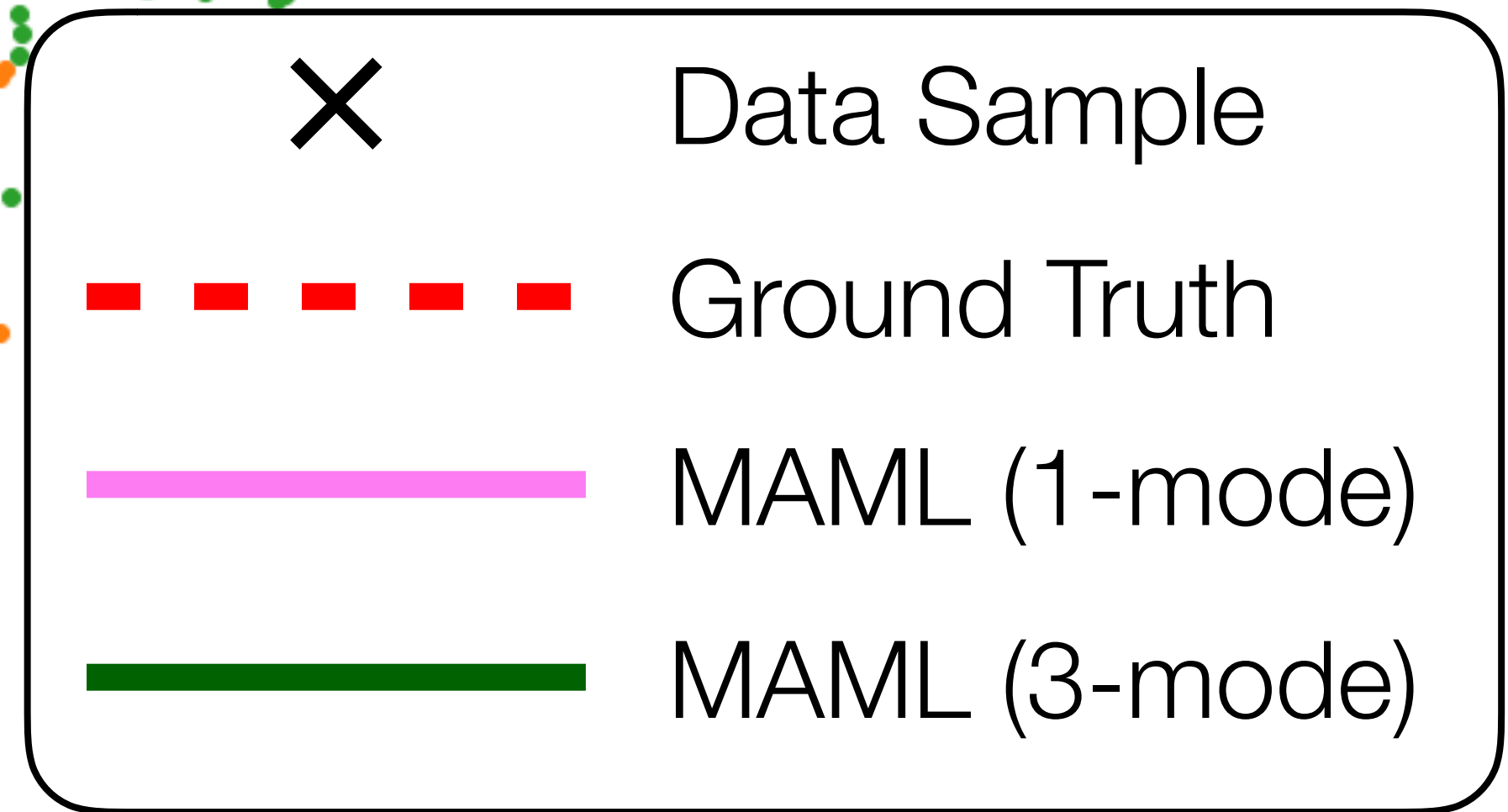
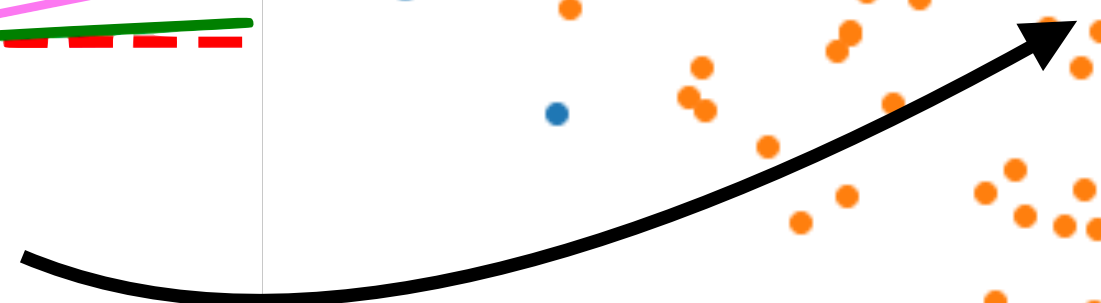
Sinusoid



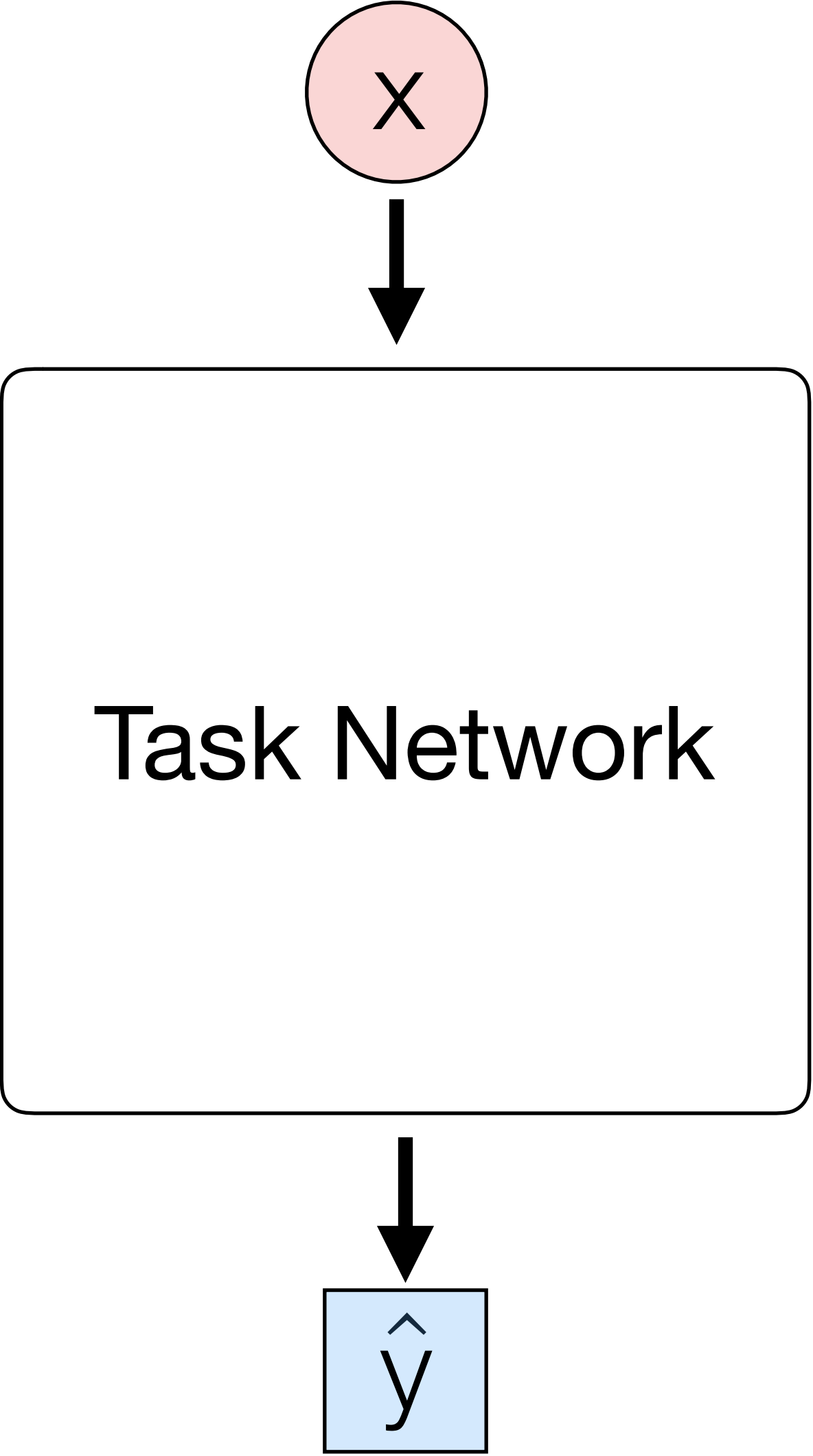
Absolute Value



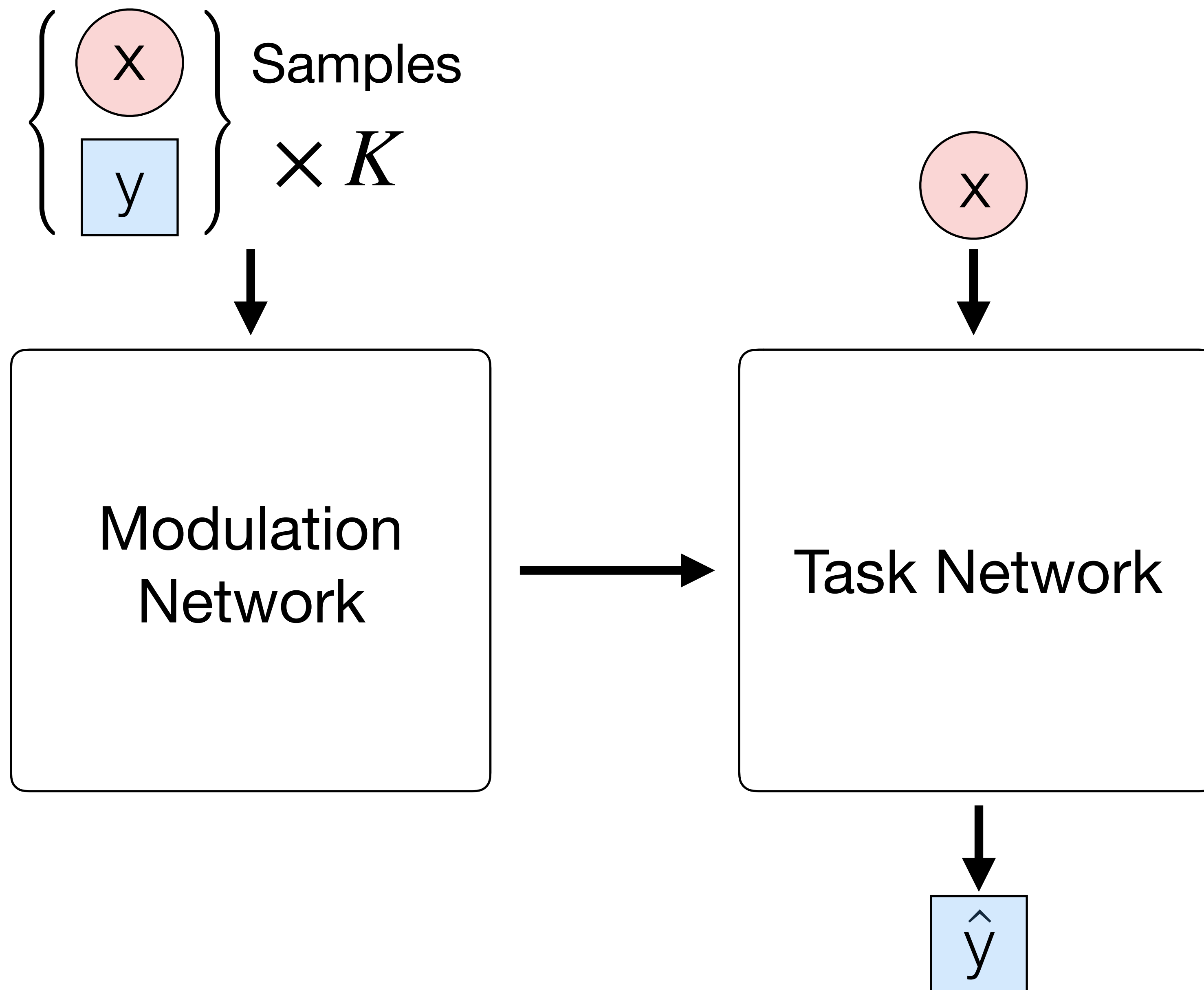
Tanh





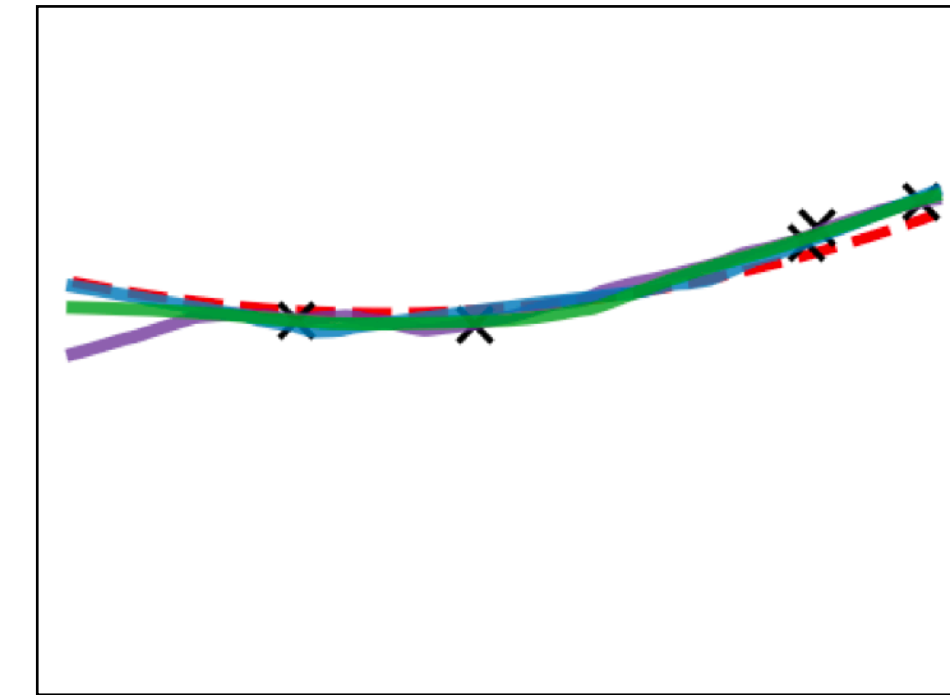
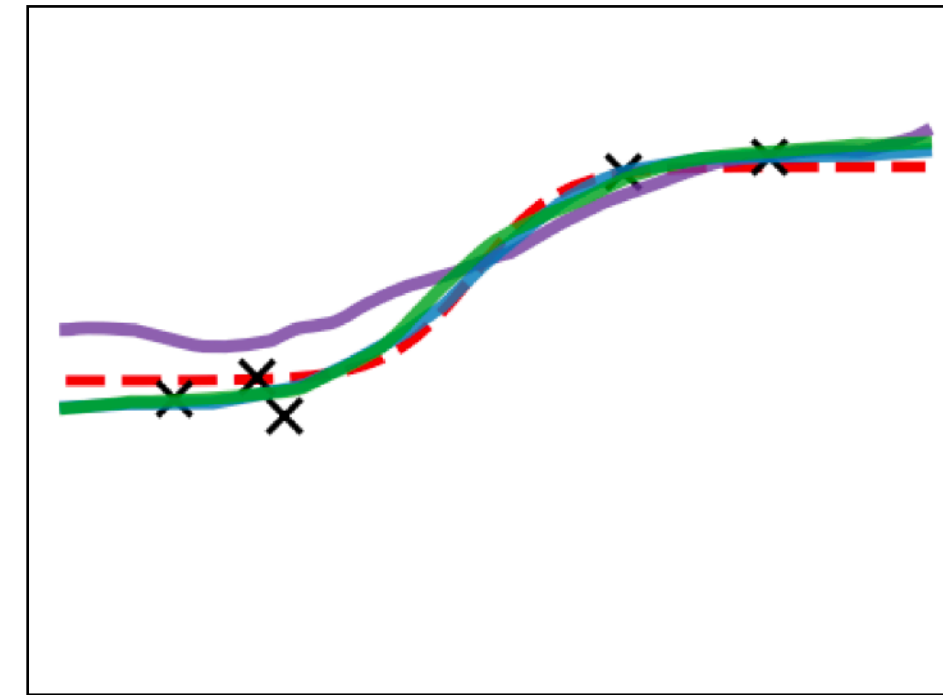
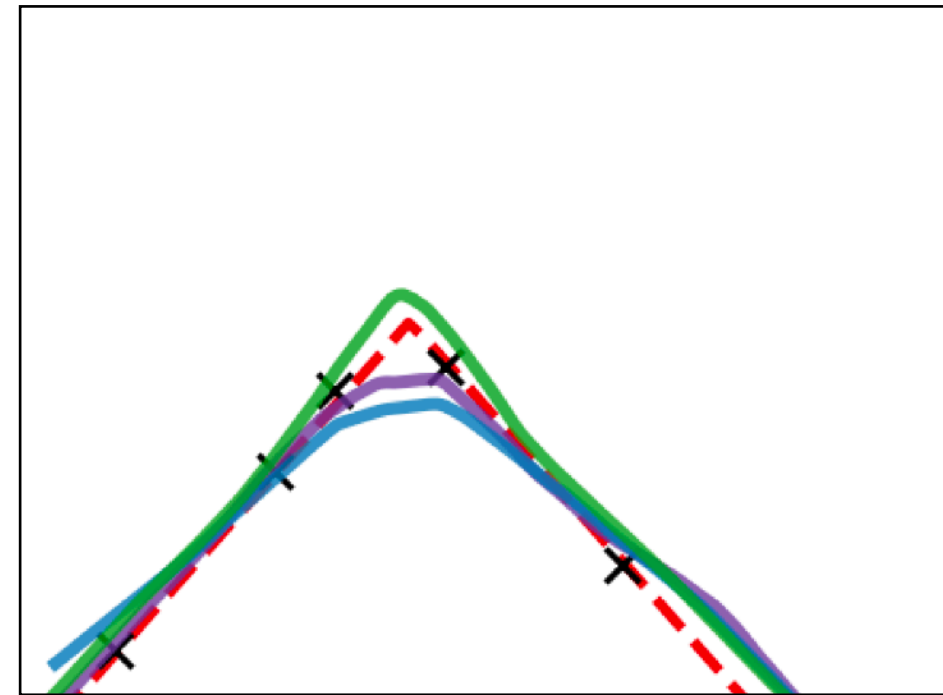
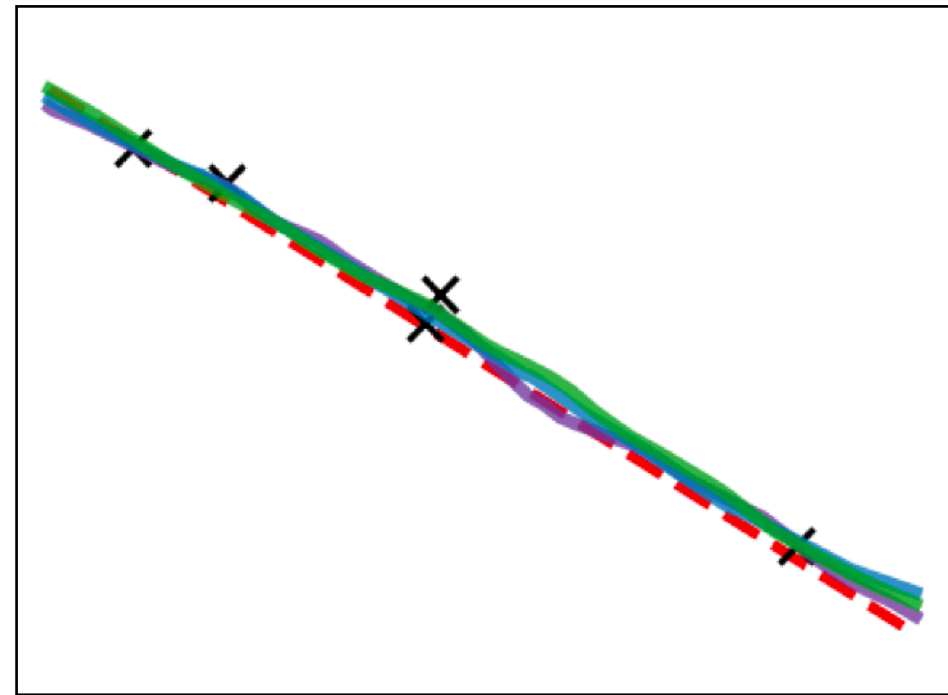
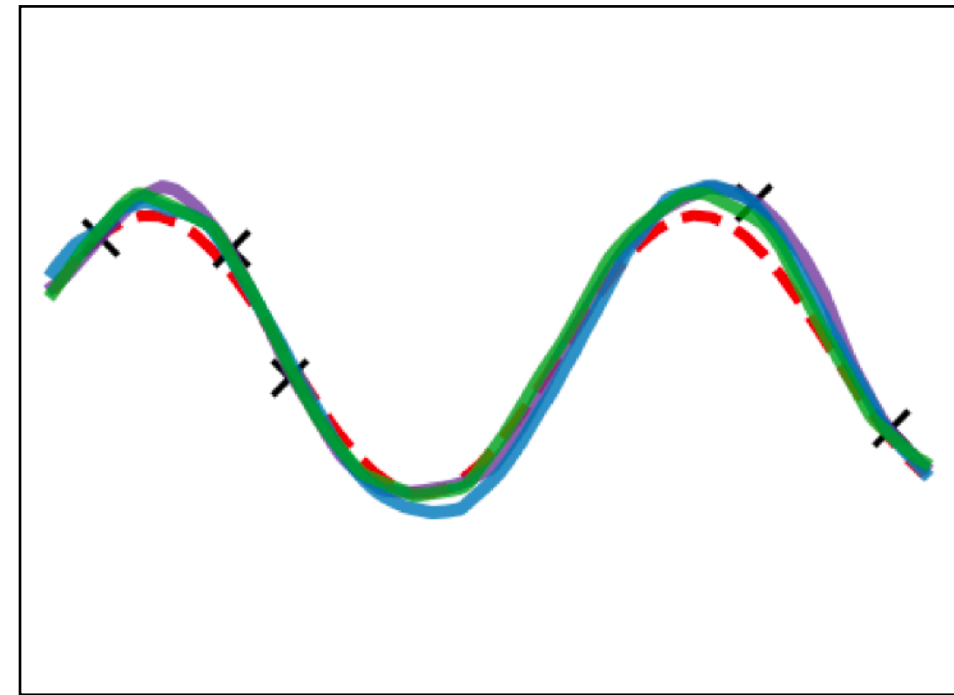
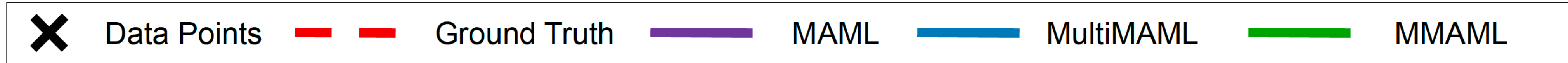






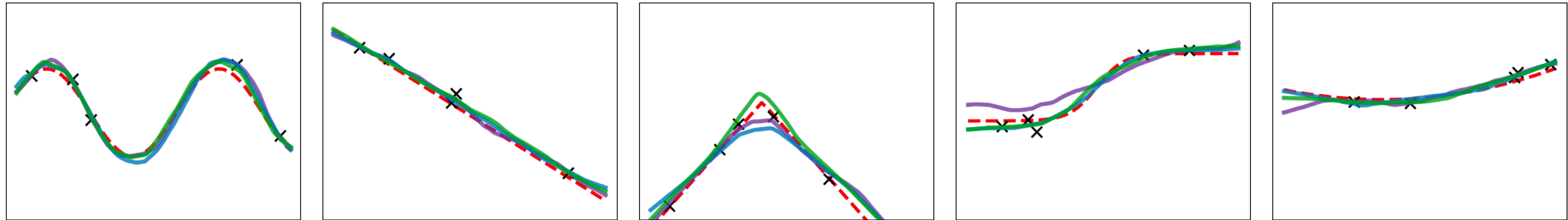


# Evaluations: Regression





# Evaluations: Regression



---

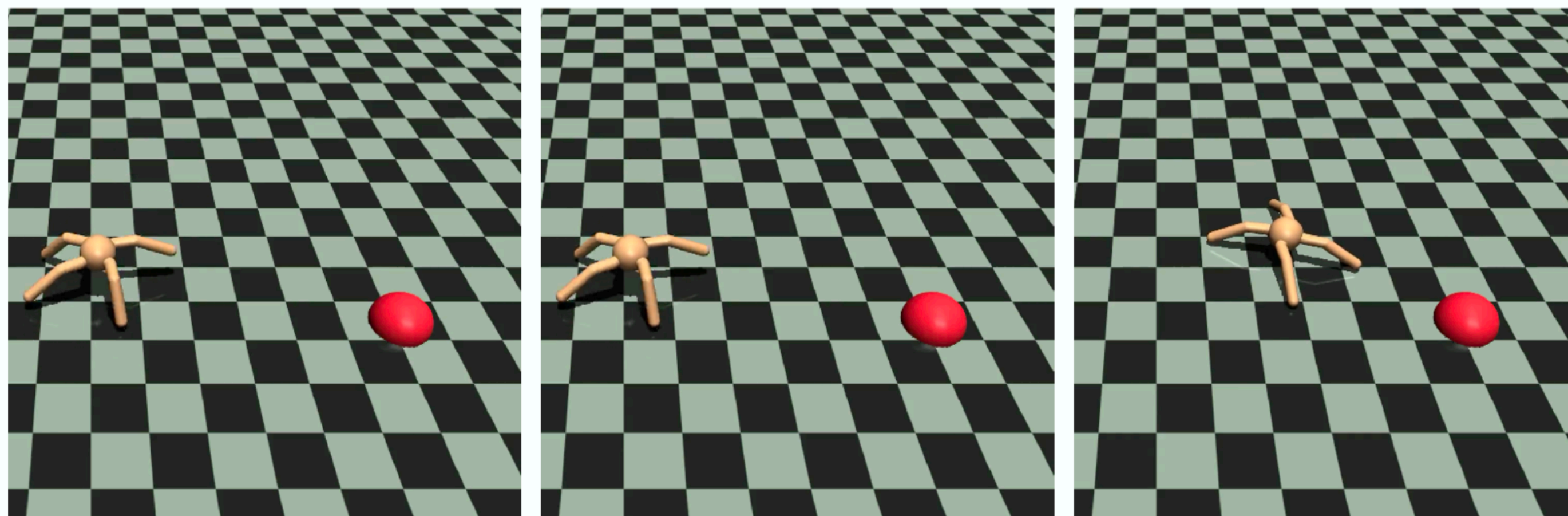
MAML	1.668
Ours	0.868

---

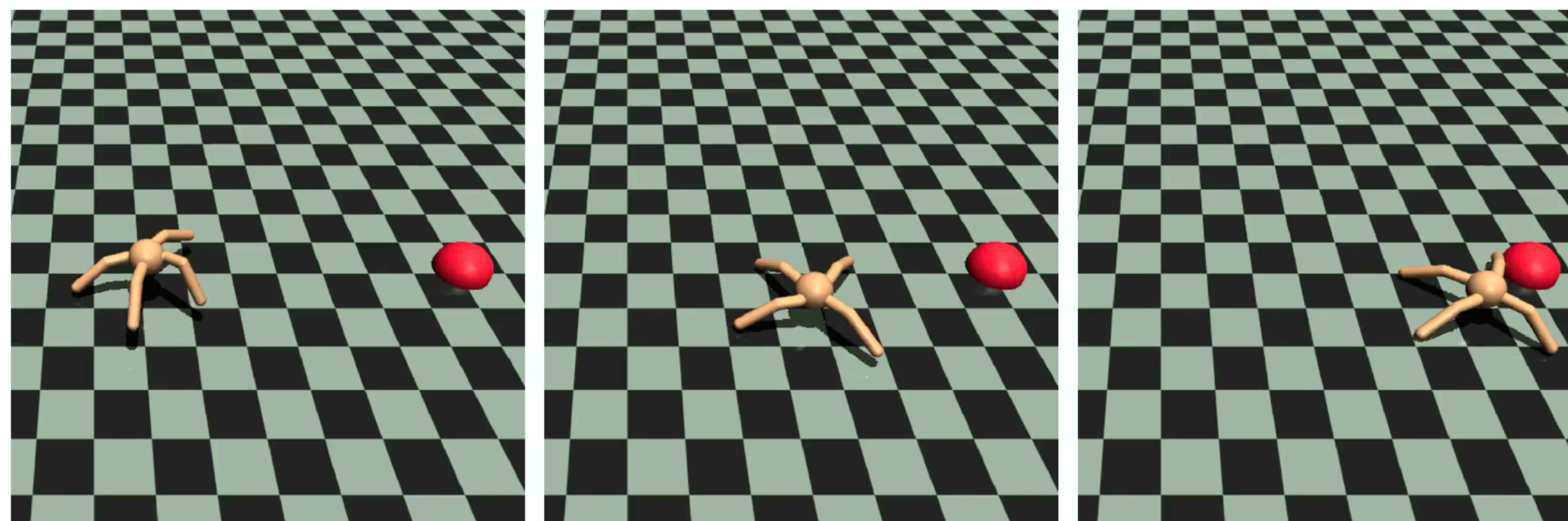


# Evaluations: Reinforcement Learning

ProMP



Ours



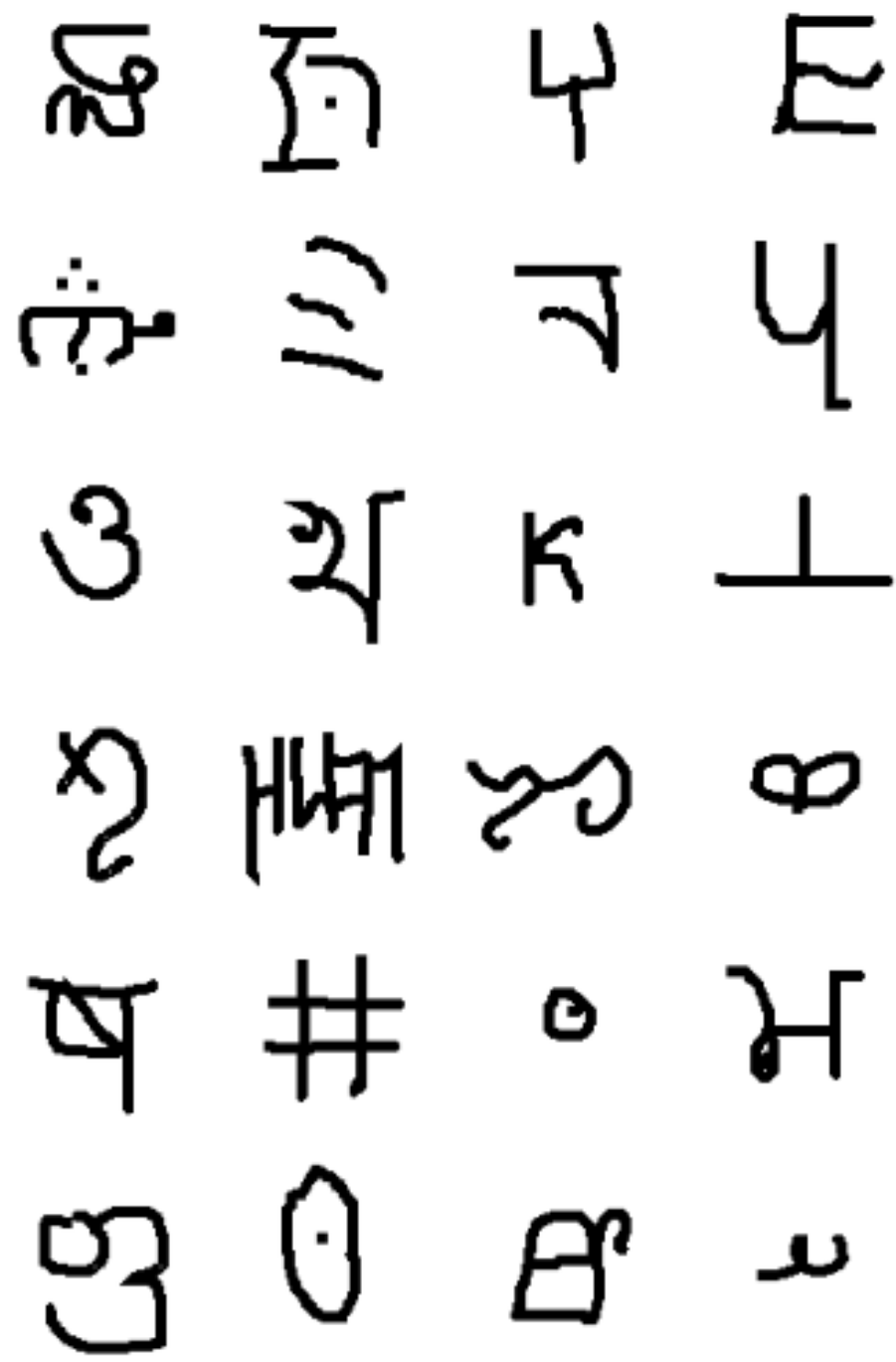






# Evaluations: Classification

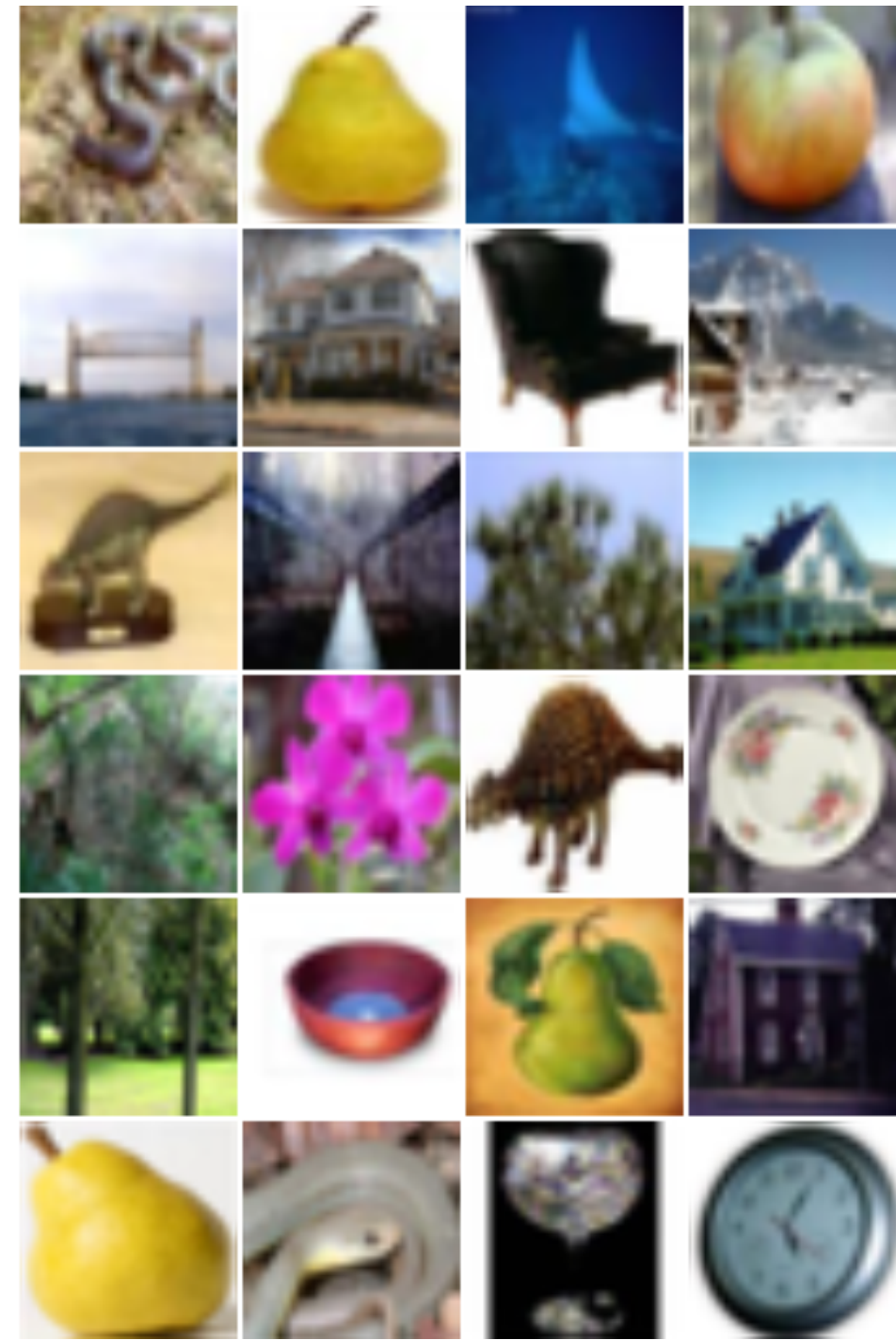
(a) Omniglot



(b) Mini-ImageNet



(c) FC100



(d) CUB



(e) Aircraft




---

MAML	54.41%
Ours	60.83%

---



05:00 -- 07:00 PM @ East Exhibition Hall B + C #31

# Multimodal Model Agnostic Meta-Learning via Task-Aware Modulation



**Risto Vuorio\***



**Shao-Hua Sun\***



**Hexiang Hu**



**Joseph J. Lim**