

Kernel Methods — Mini-Presentation Questions

1. What Is a Kernel and a Kernel Method?

- What is a kernel function $K(x, x')$?
- What does it mean for a learning method to be a *kernel method*?

2. What Kernel Methods Do You Know?

- List some kernel methods you are familiar with.
- For **one** example, briefly explain:
 - the learning task (e.g., regression, classification, dimensionality reduction), and
 - where the kernel enters the method.

3. Why Do We Use Kernels?

- What limitations of standard linear models motivate the use of kernels?
- In your view, **when are kernel methods the right tool**, and when might they be a poor choice?