## Geometrical kernel selection for classification Jeongyoun Ahn

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*Abstract:* Kernel based classifications such as support vector machine are powerful. In practice, the choice of kernel function is an important issue. The common solution, cross-validation, is computationally expensive and suffers large sampling variability. The proposed method is derived from the geometry of the feature space embedded by the kernel function. It is empirically shown that it is robust to the sampling variability and fast in computation.