




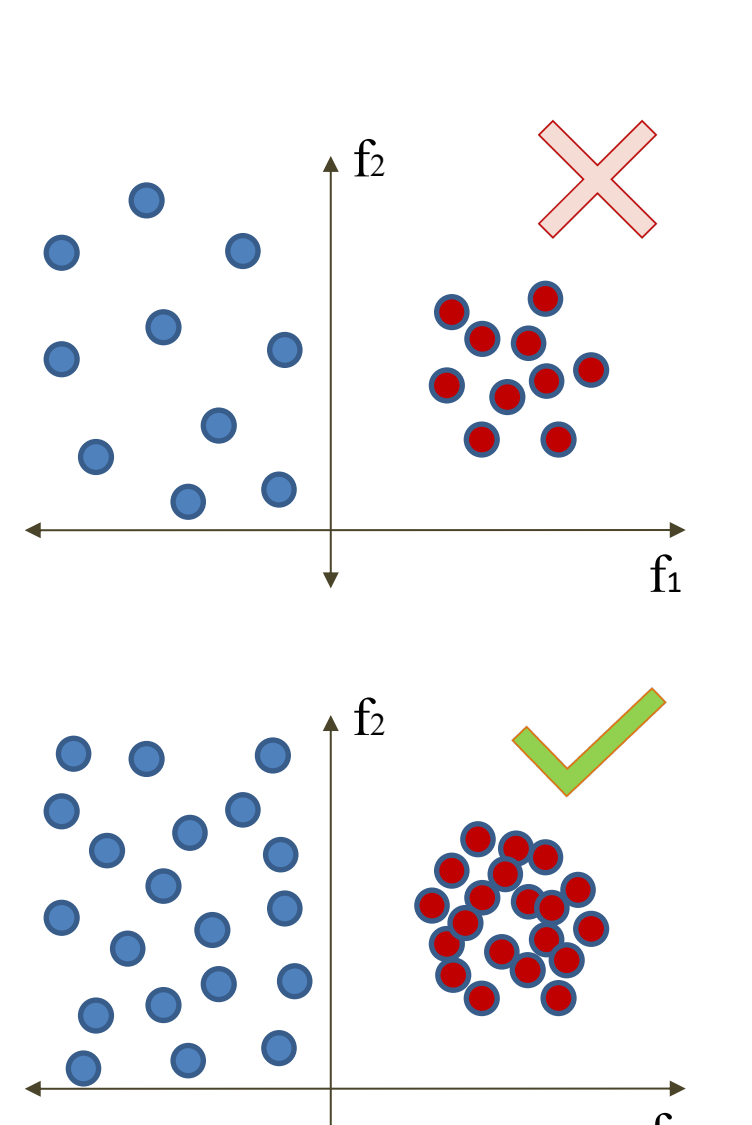
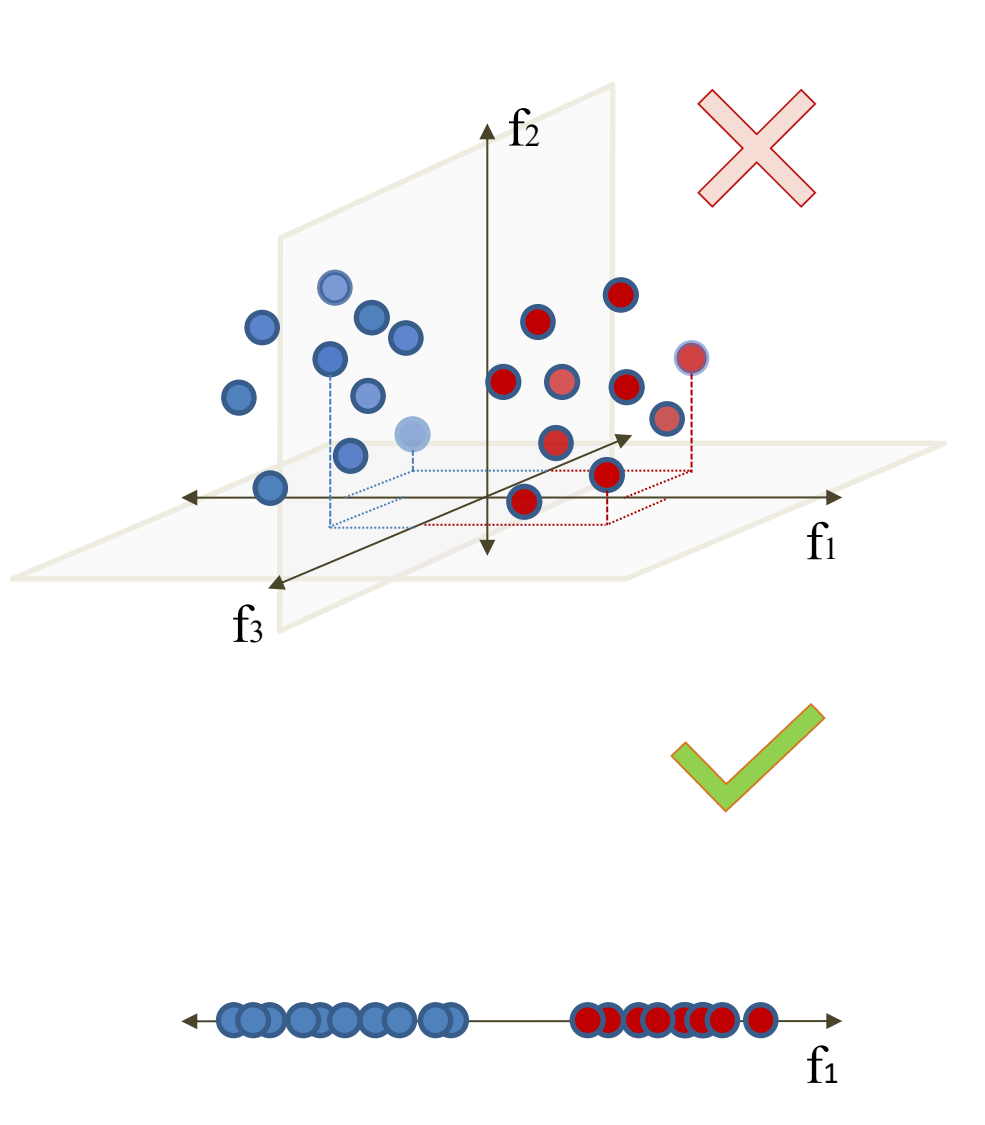
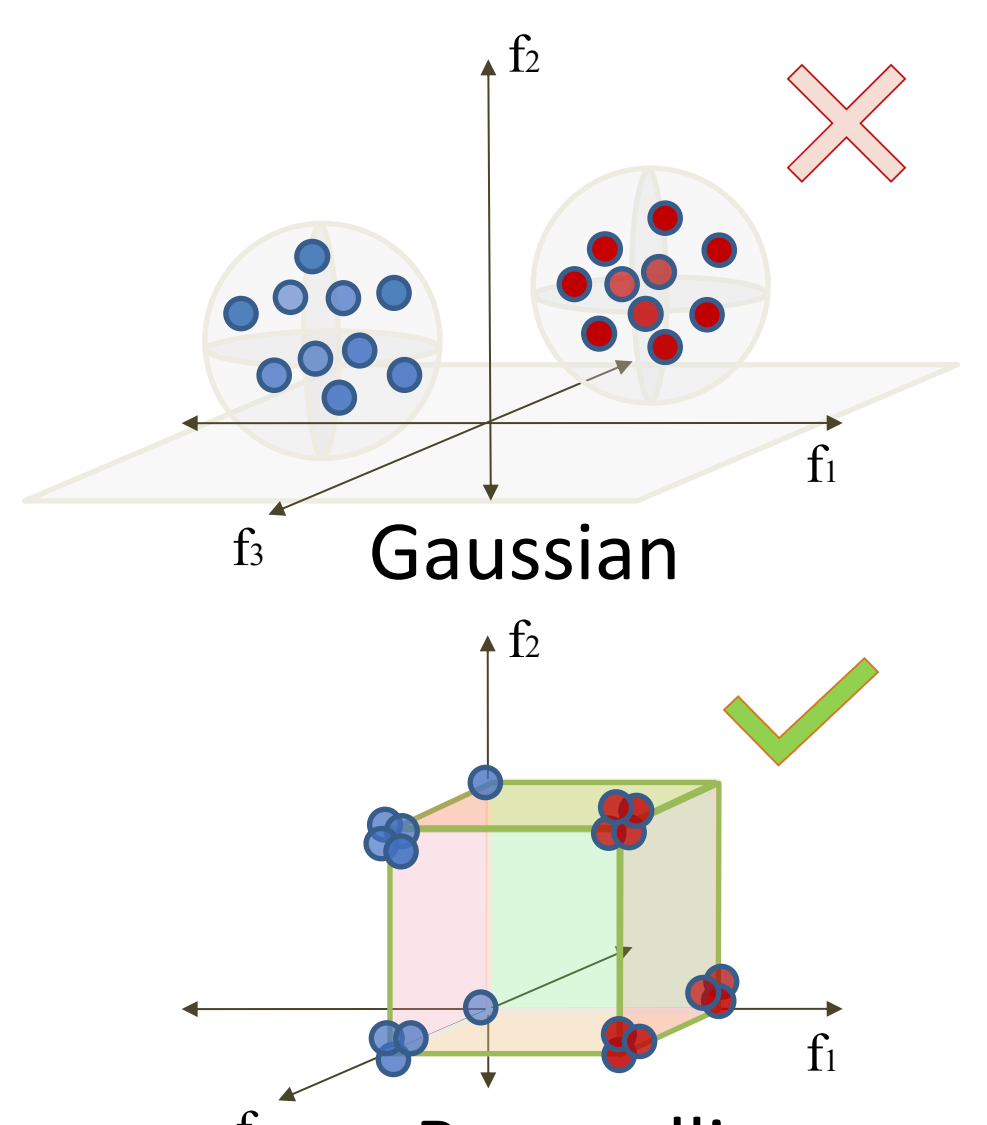
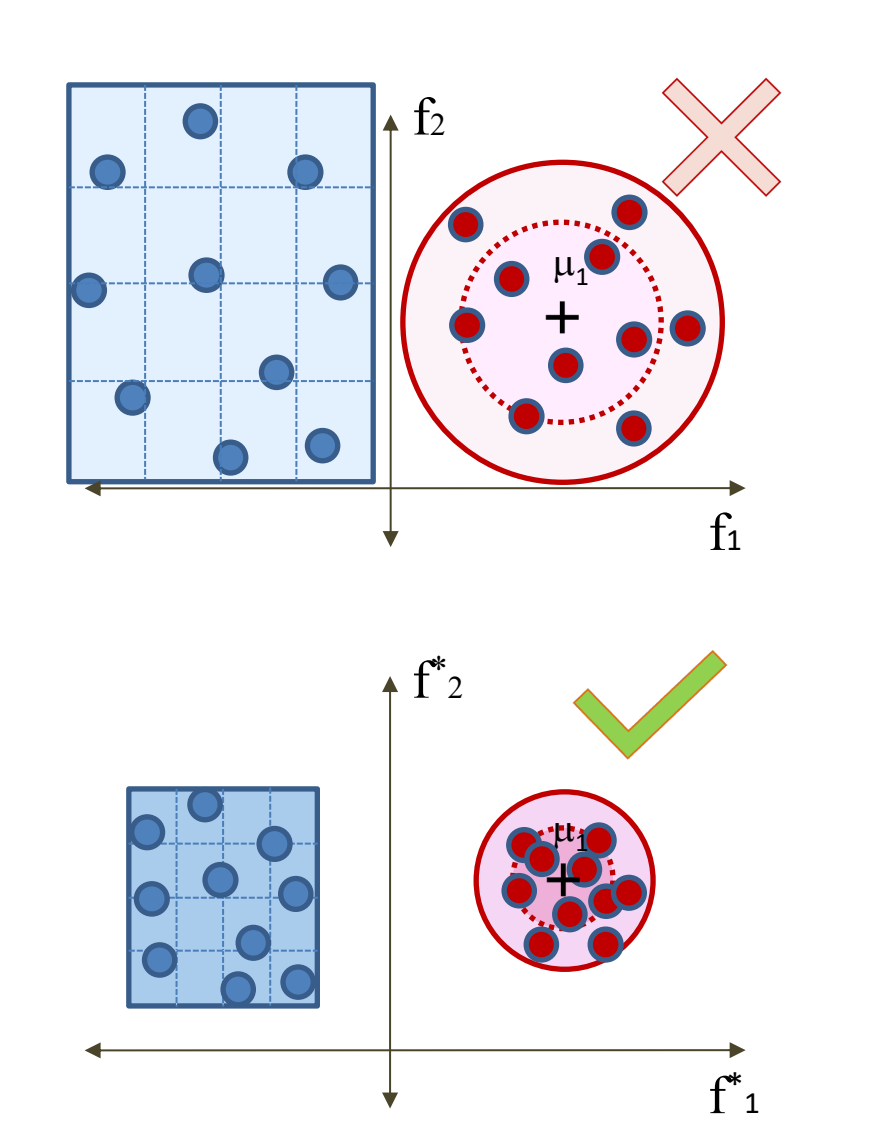
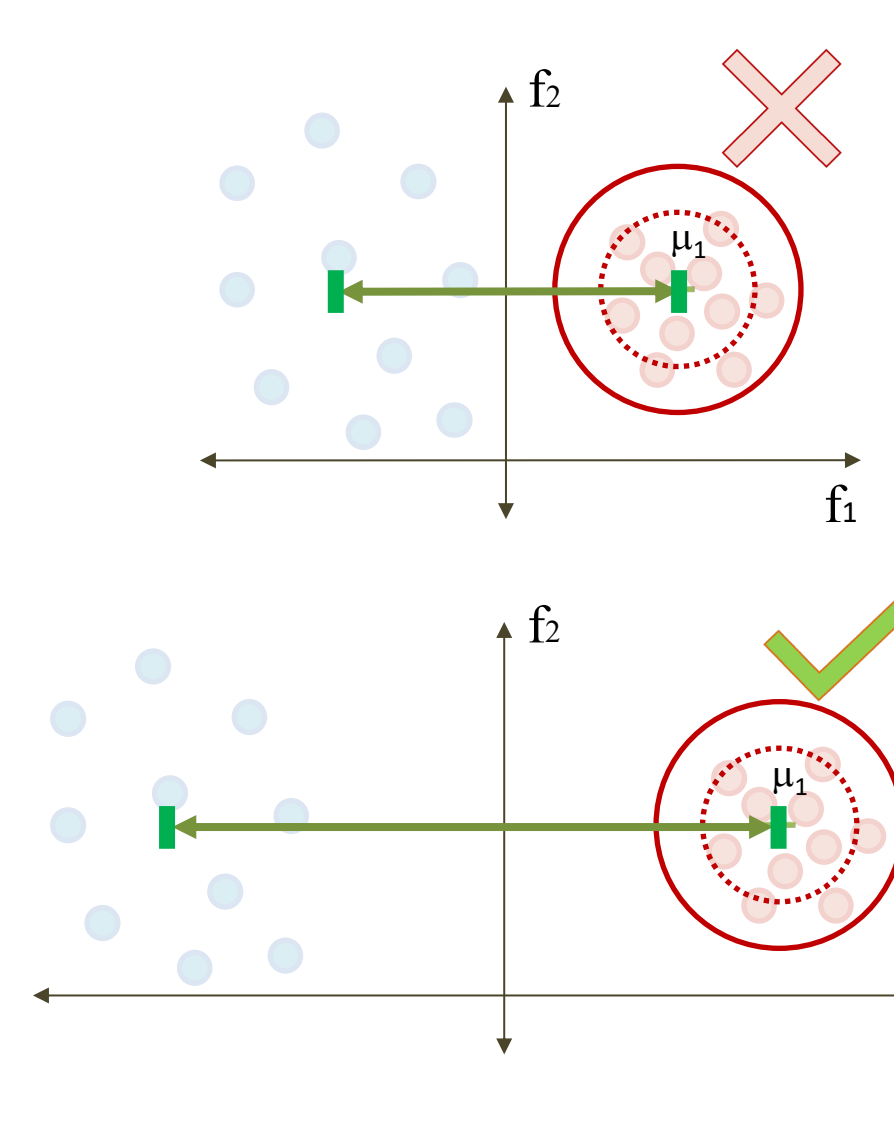
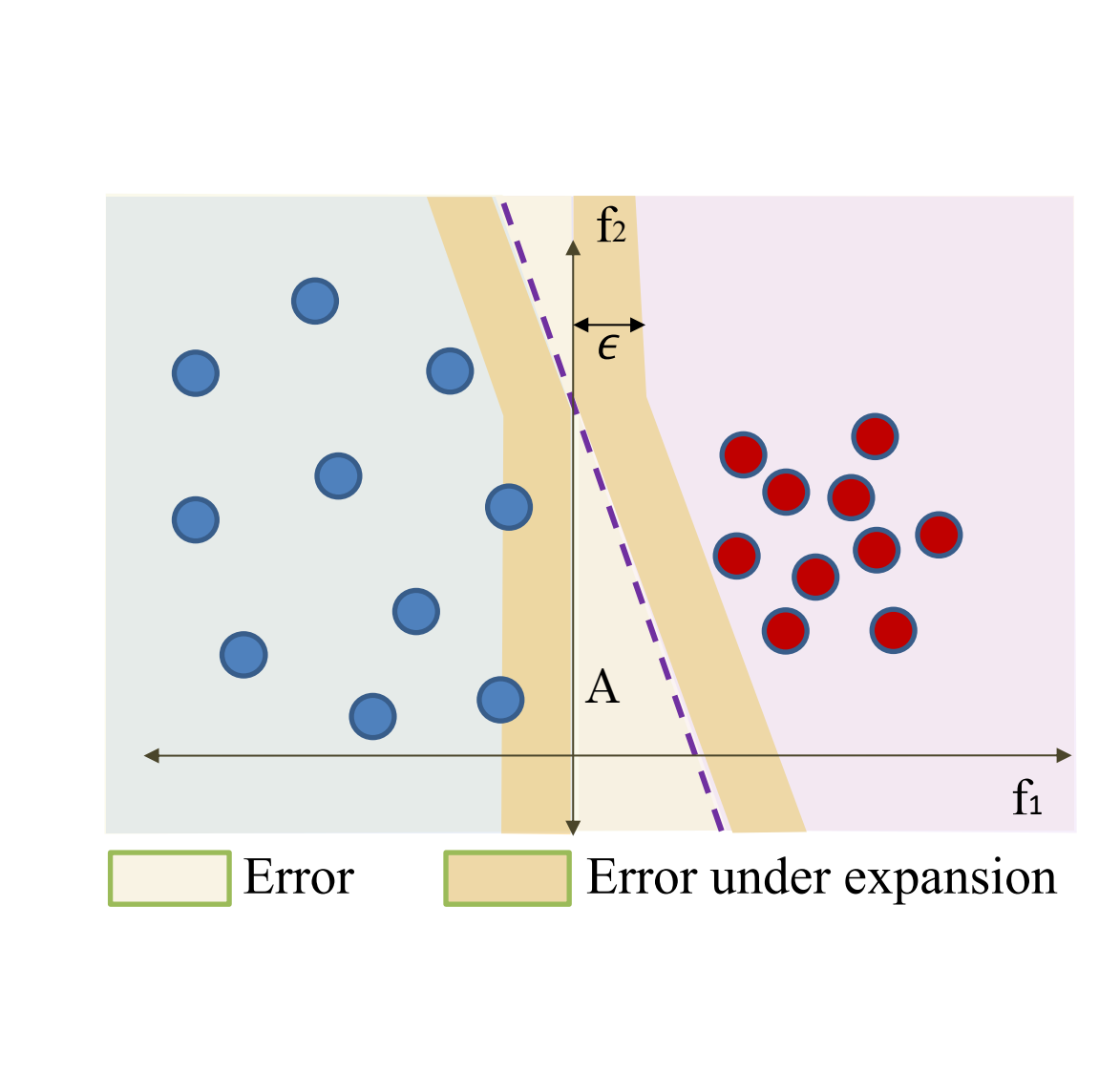
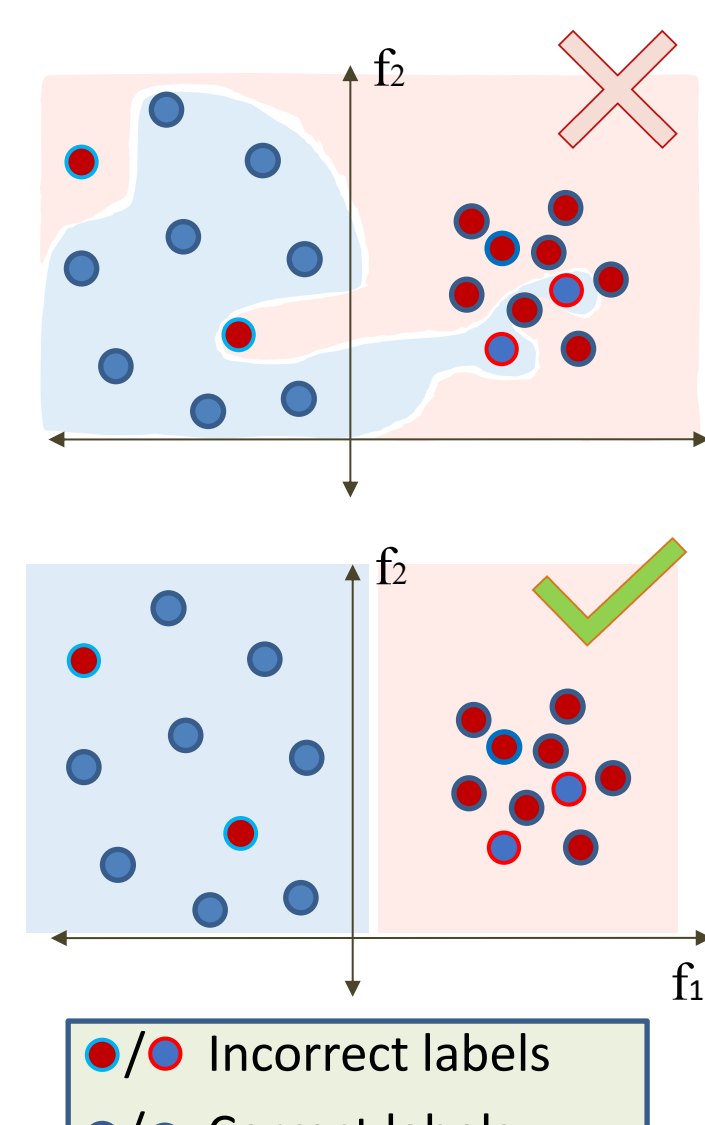
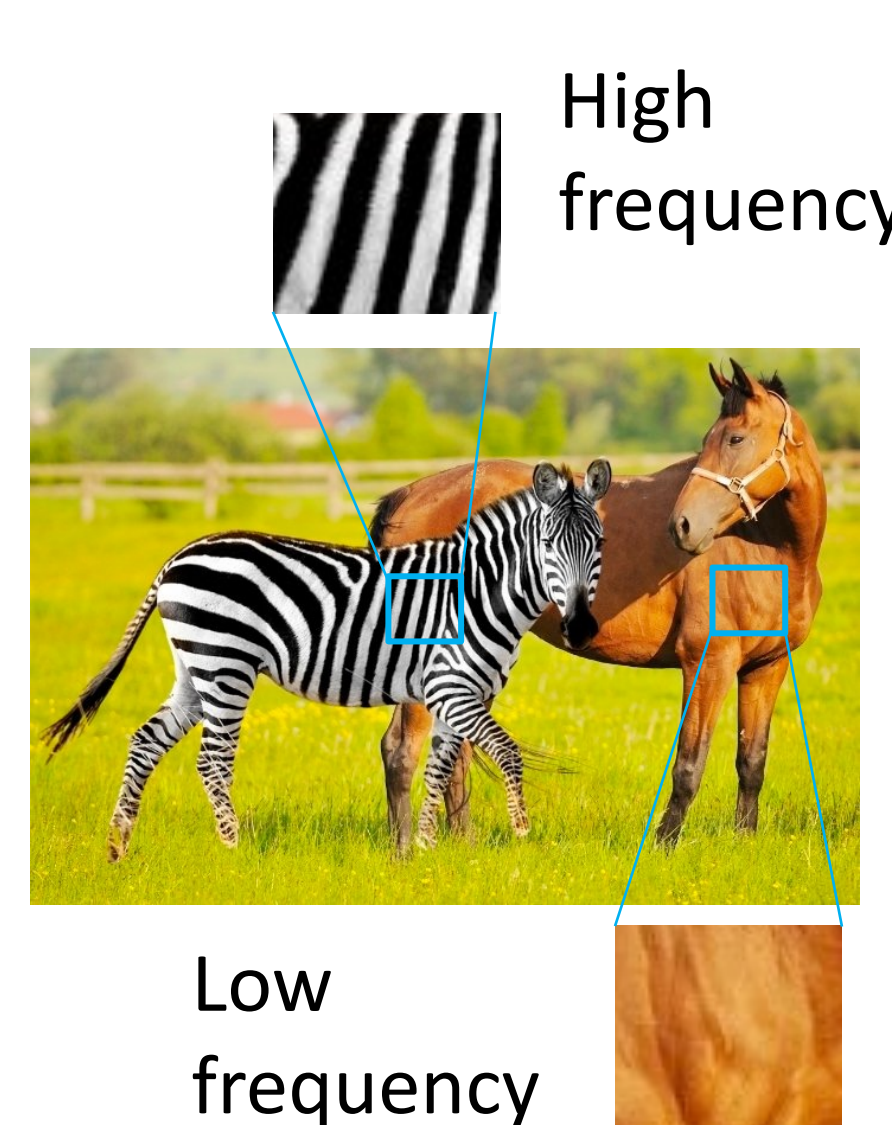


	Number of Training Samples 	Number of Features/Dimensionality 	Types and Properties of Distribution	Density 	Separation 	Concentration 	Label Noise and Label Granularity	Domain specific
Illustration			 <p>Gaussian</p> <p>Bernoulli</p>					
Main results	<ul style="list-style-type: none"> Significantly larger quantity is needed for adversarial vs. standard generalization Robustness is harder on imbalanced data 	<ul style="list-style-type: none"> High-dimensional datasets are more prone to adversarial examples More challenges in generalizing robust solutions 	<ul style="list-style-type: none"> Certain distribution types are more optimal Distributions with symmetry and low variance are more optimal for robustness 	<ul style="list-style-type: none"> Adversarial examples from low density regions are more transferable Can defend by projecting to high density regions 	<ul style="list-style-type: none"> Optimal-transport-based separation defines adversarial risk's lower bound Local classifiers are inherently robust on well-separated data 	<ul style="list-style-type: none"> Concentration worsen with high dimensionality Evaluating the concentration of empirical datasets provides an estimate of attainable robustness 	<ul style="list-style-type: none"> Using refined labels, e.g., “cat” instead of “animal”, improves robustness Training with multiple tasks boosts robustness 	<ul style="list-style-type: none"> CNNs are vulnerable to attacks on high frequency components Diverse image frequencies boosts robustness