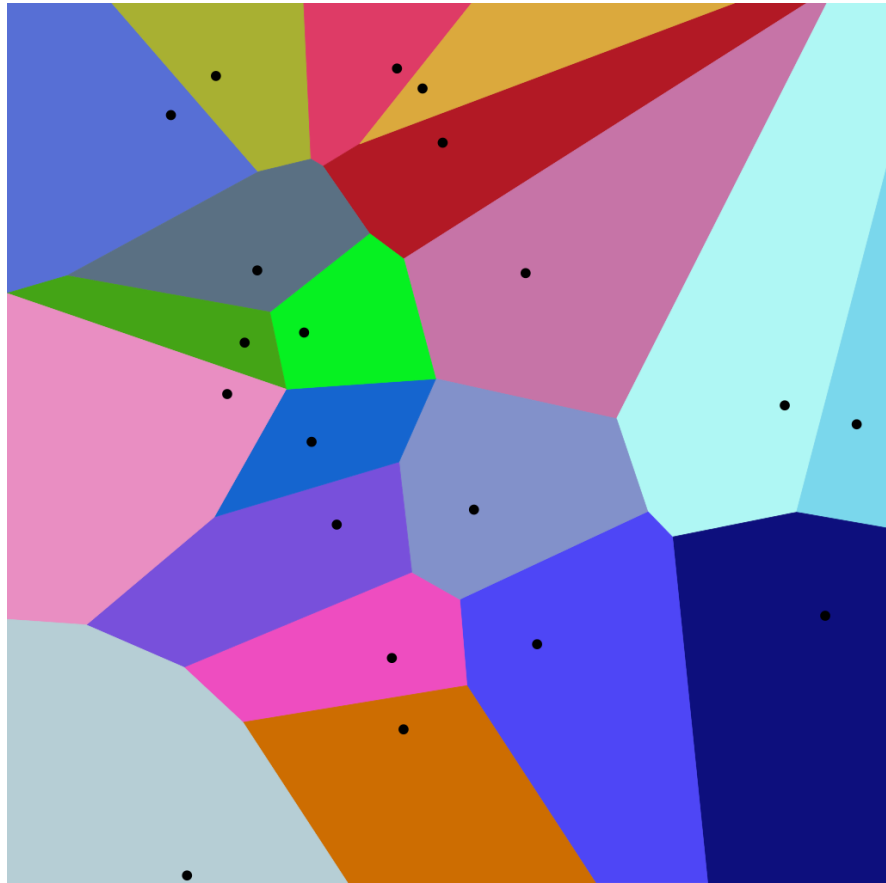


CMSE 820: Mathematical Foundations of Data Science

Lecture 14

Voronoi diagram

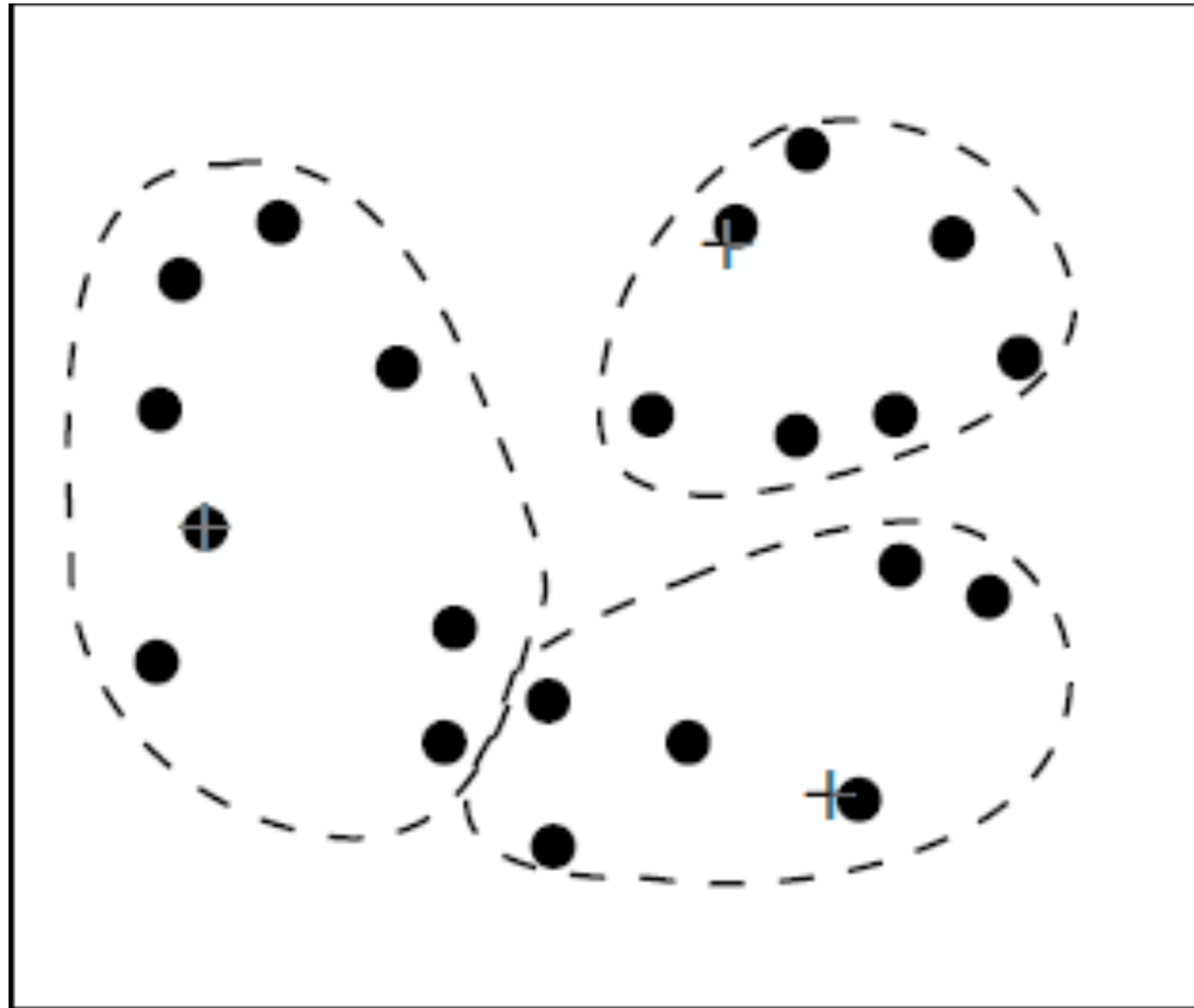


Euclidean norm

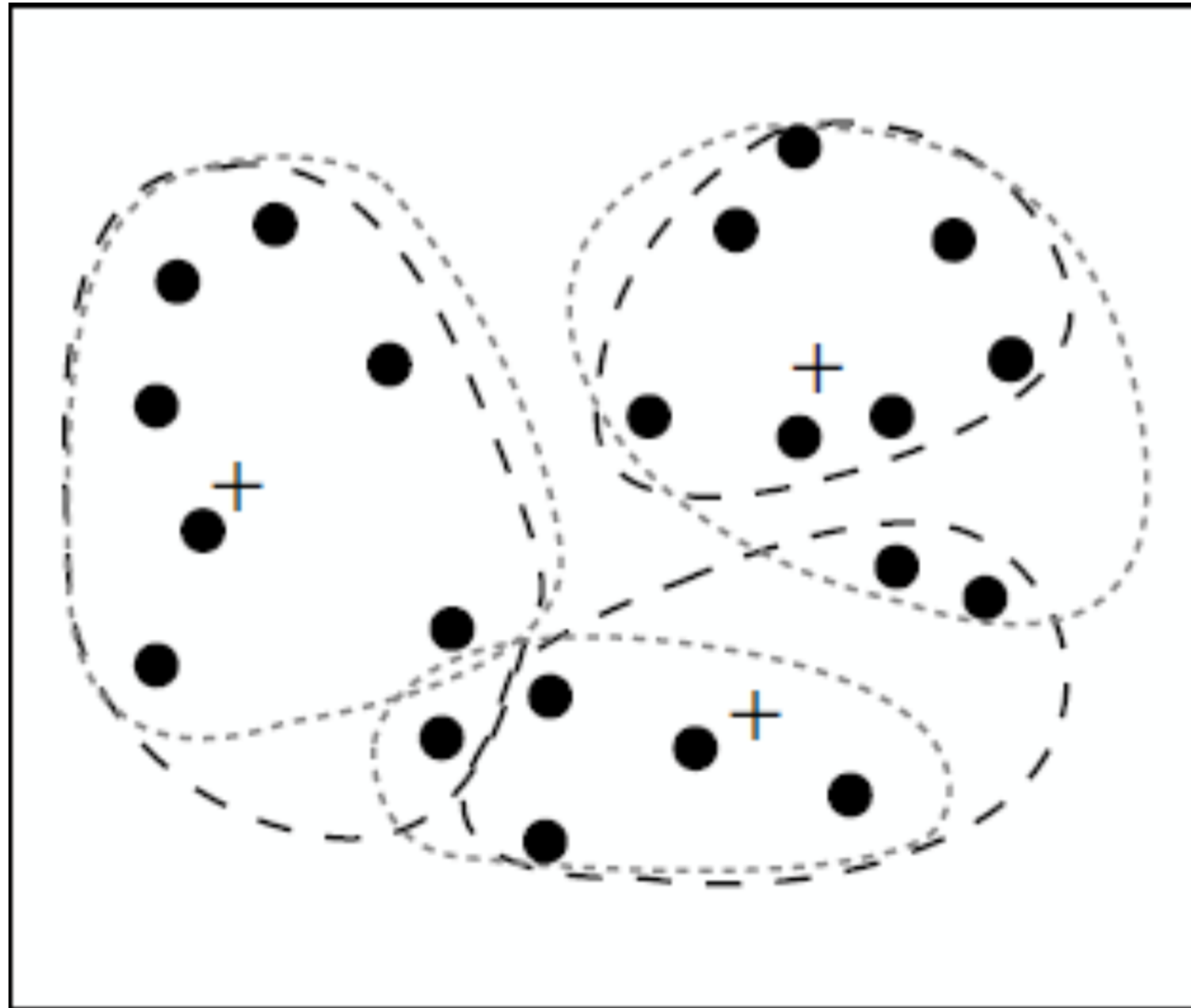


ℓ^1 norm

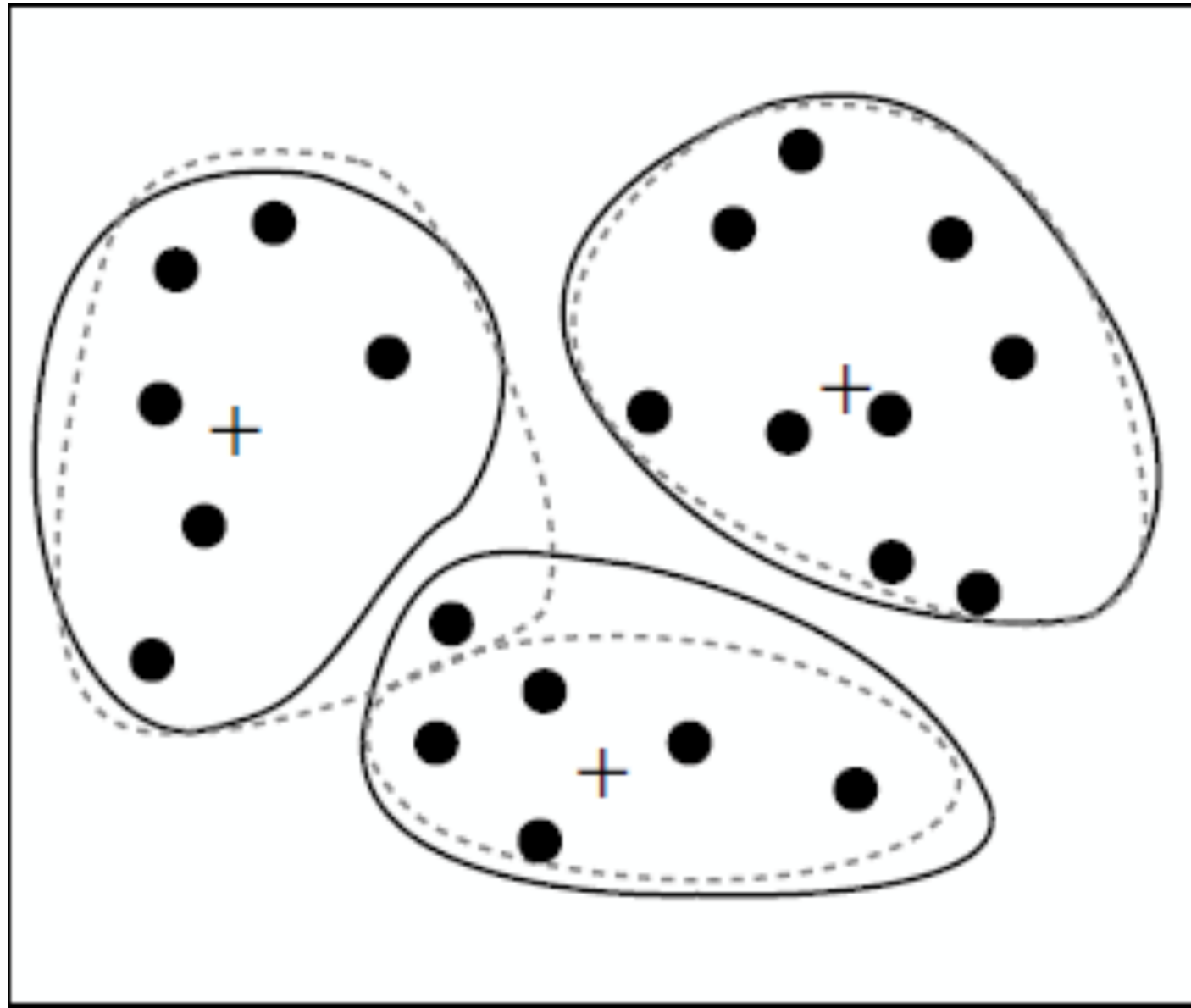
k-Means



k-Means

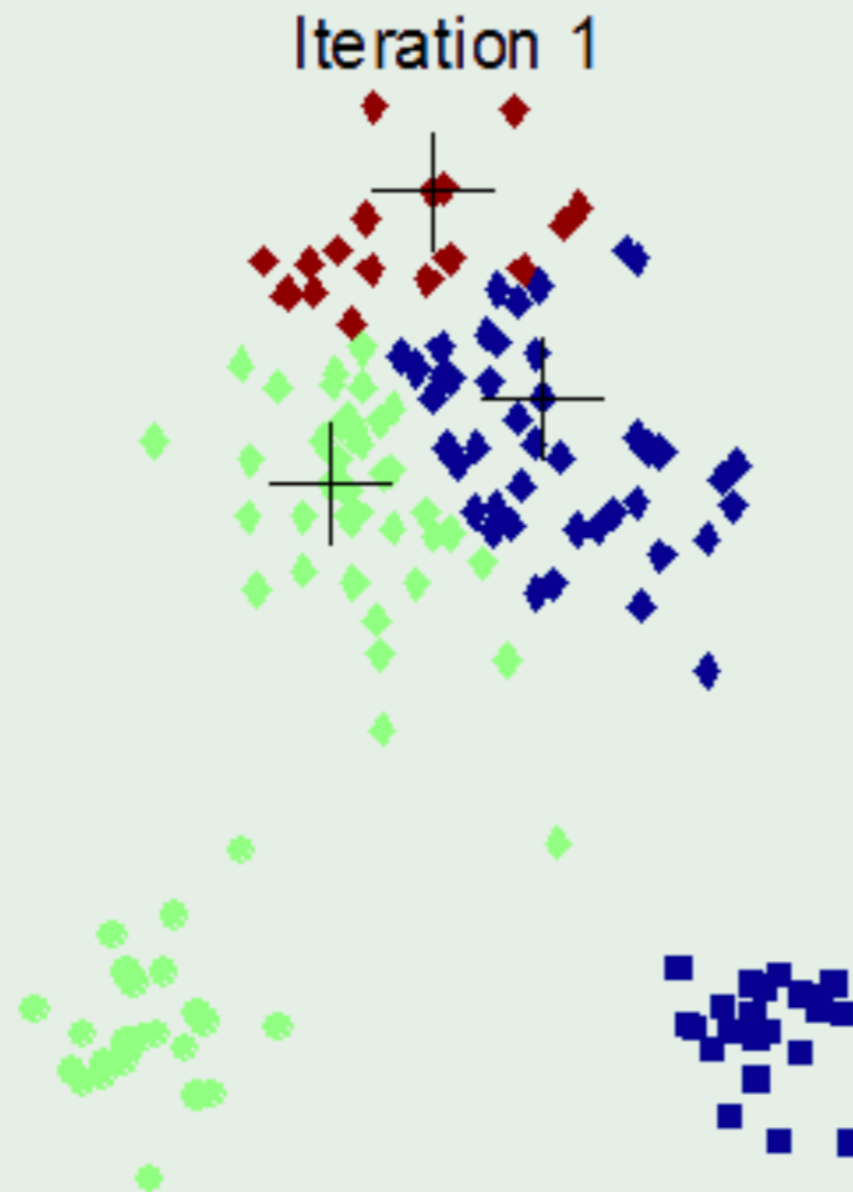


k-Means



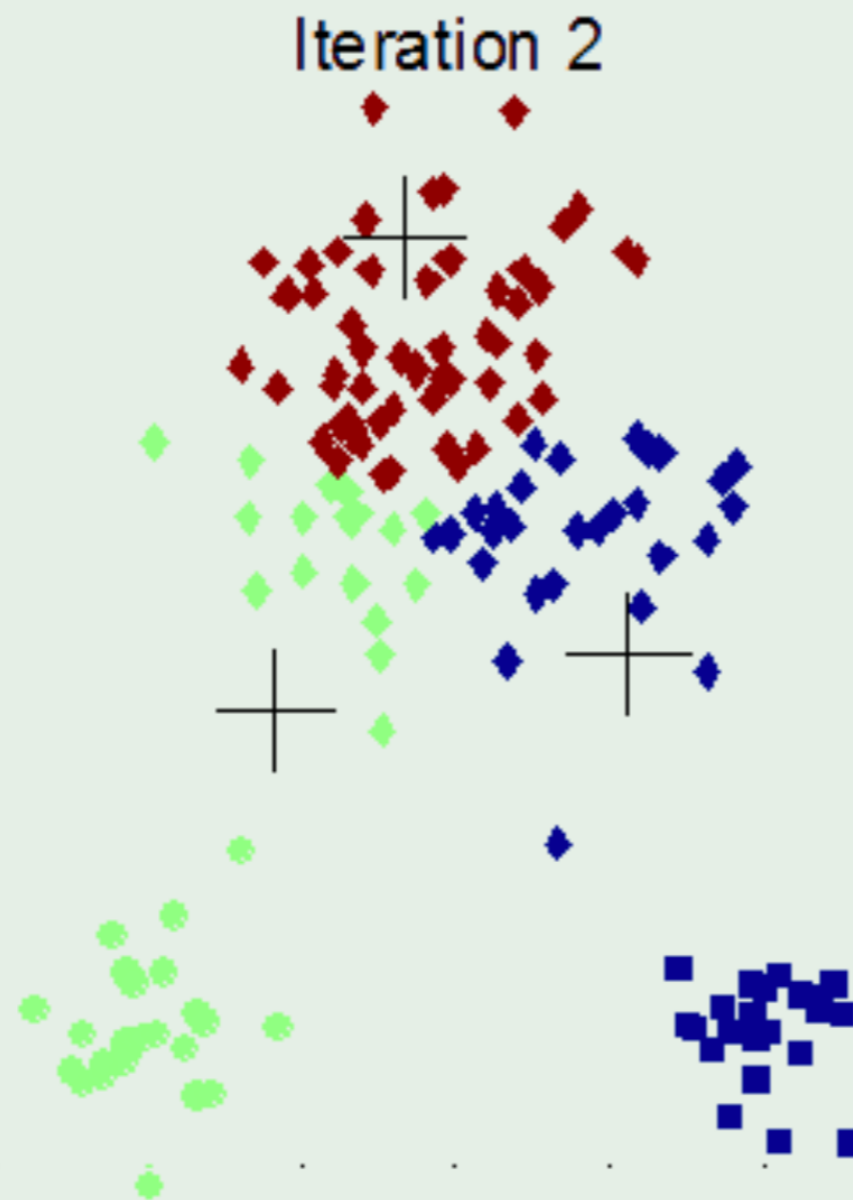
k-Means

Example (Good initialization)



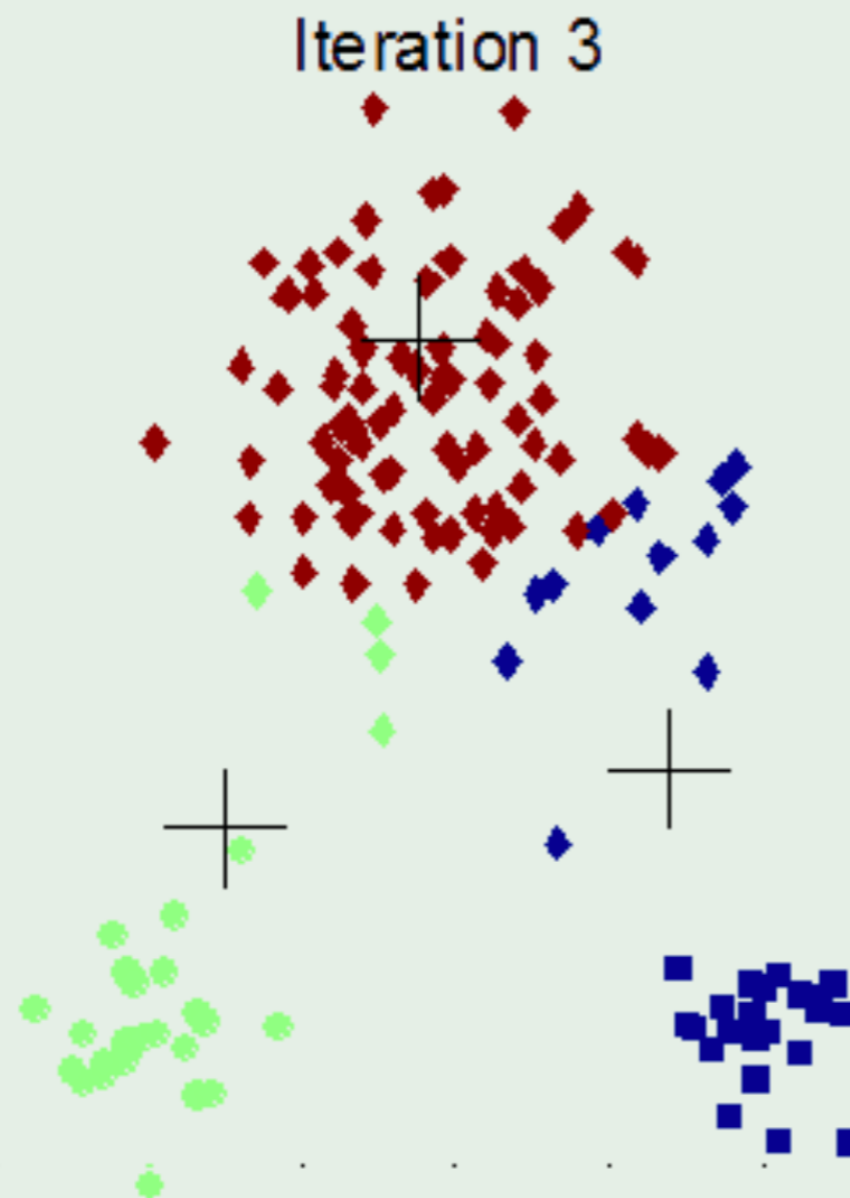
k-Means

Example (Good initialization)



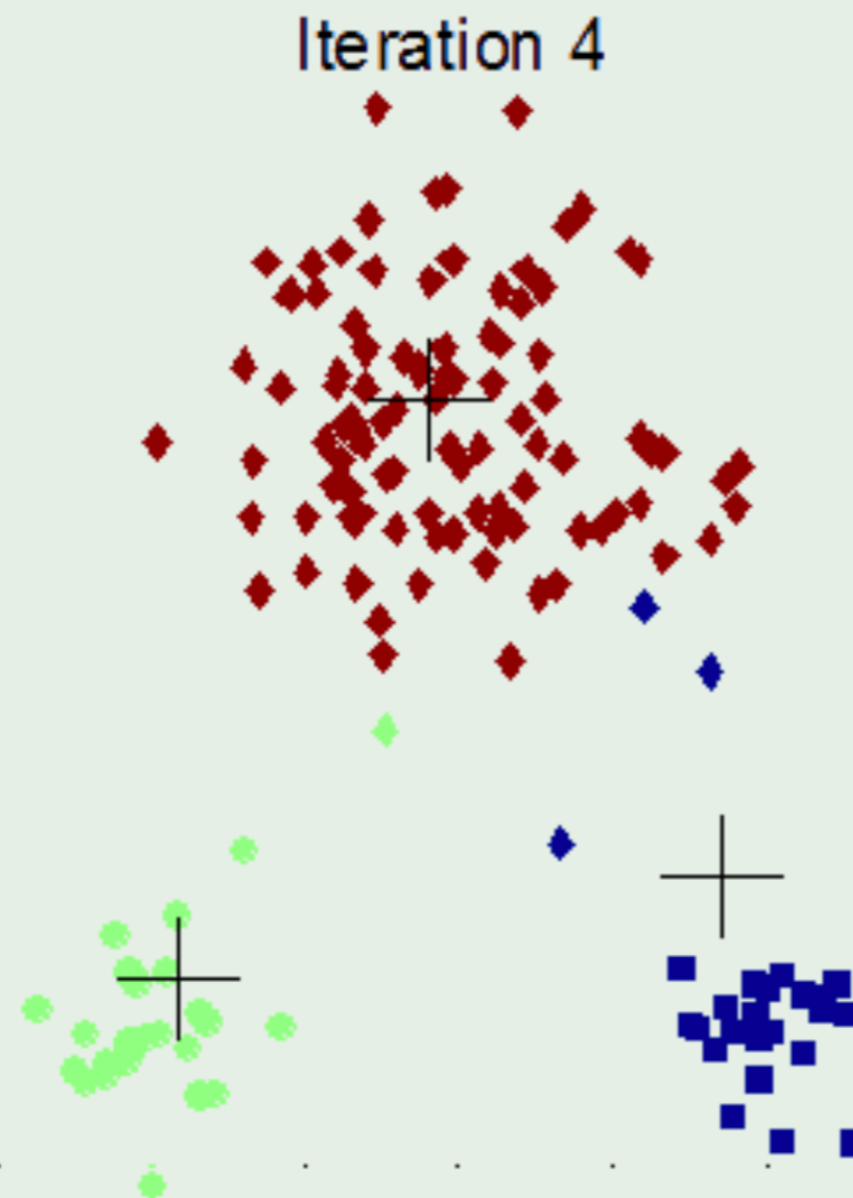
k-Means

Example (Good initialization)



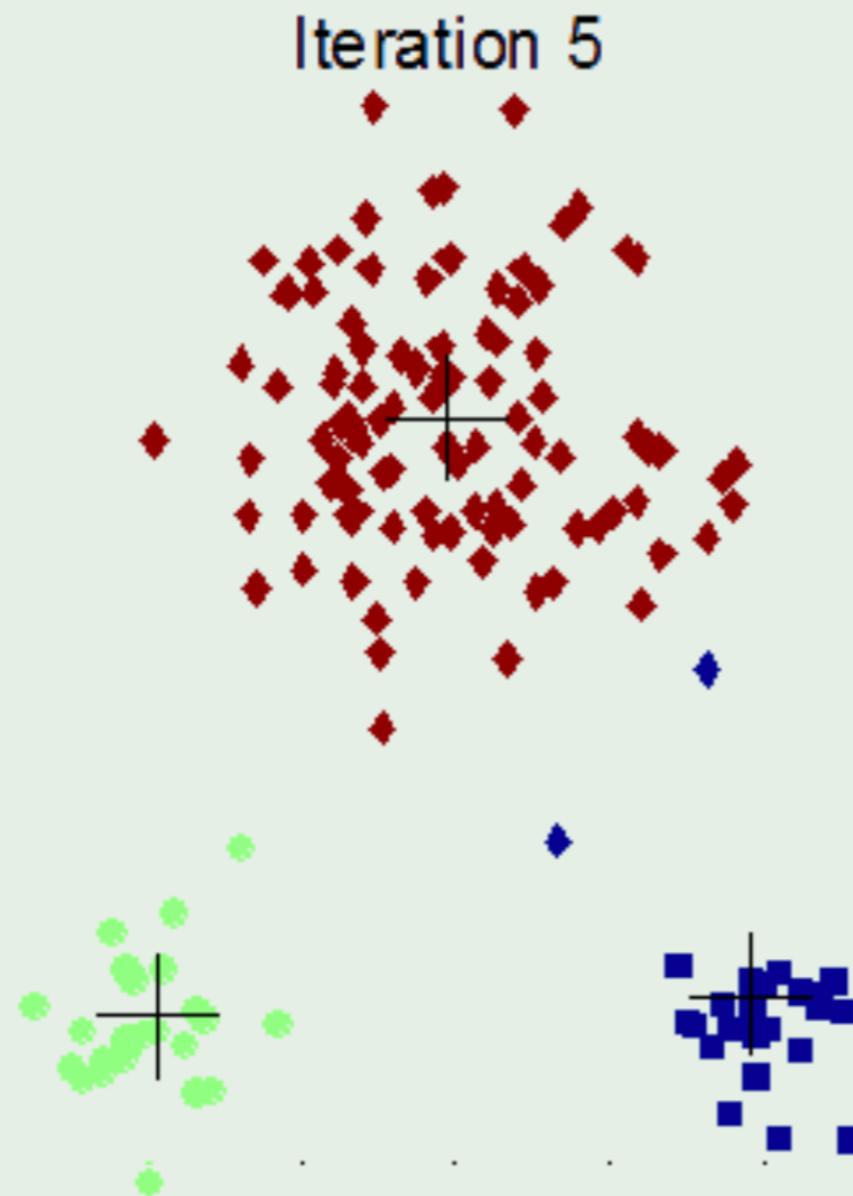
k-Means

Example (Good initialization)



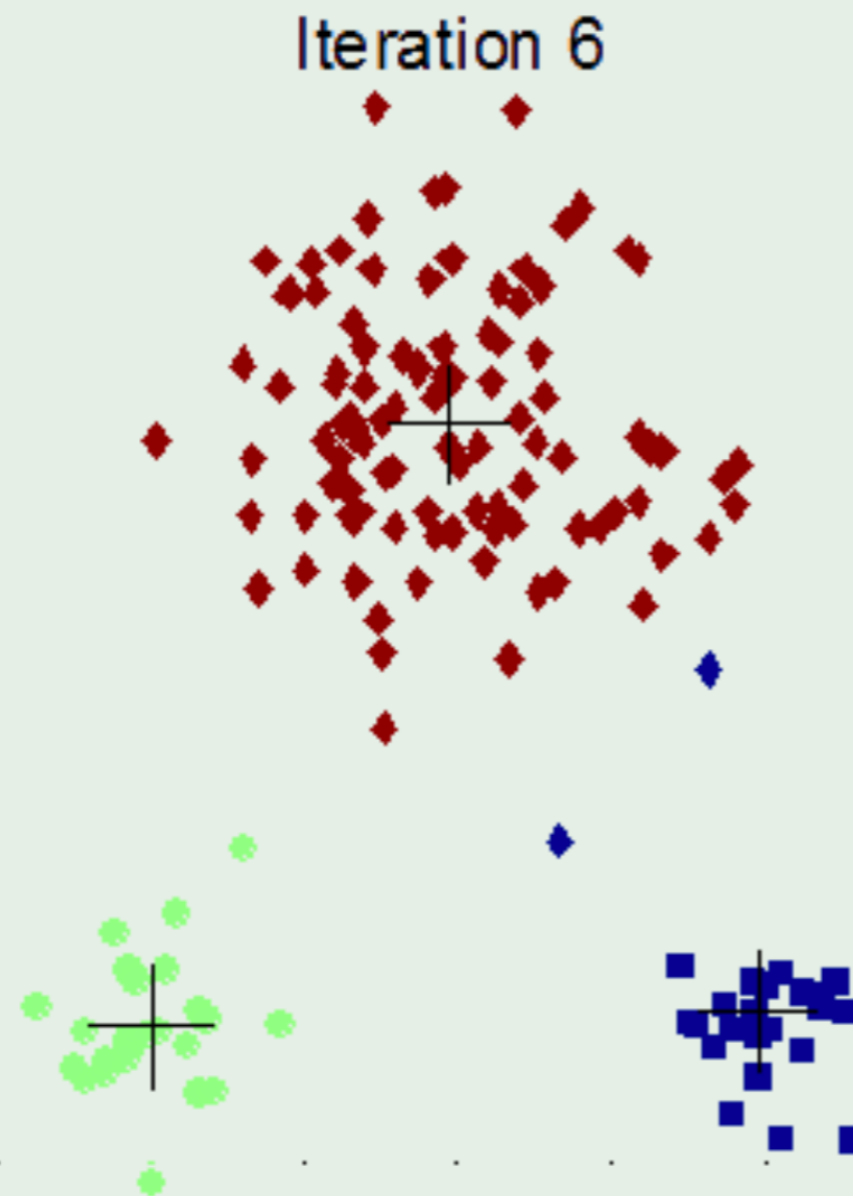
k-Means

Example (Good initialization)



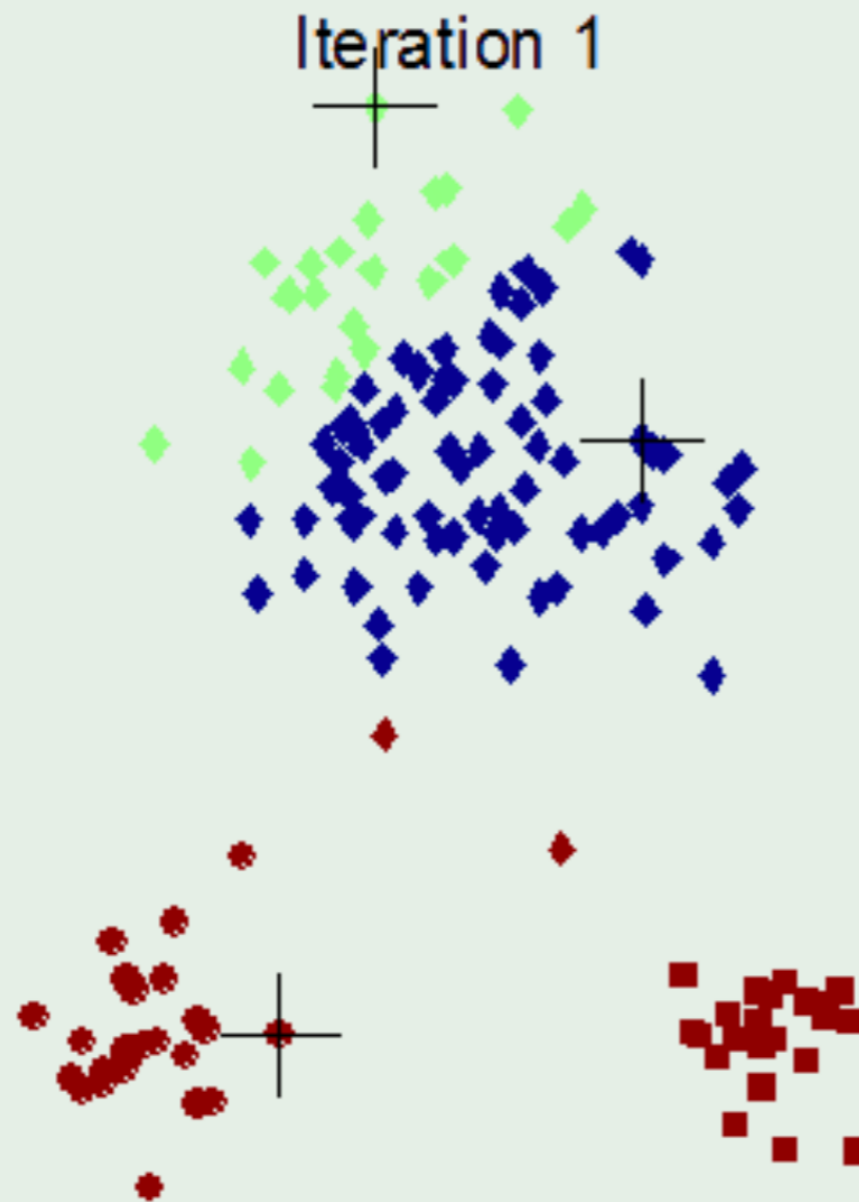
k-Means

Example (Good initialization)



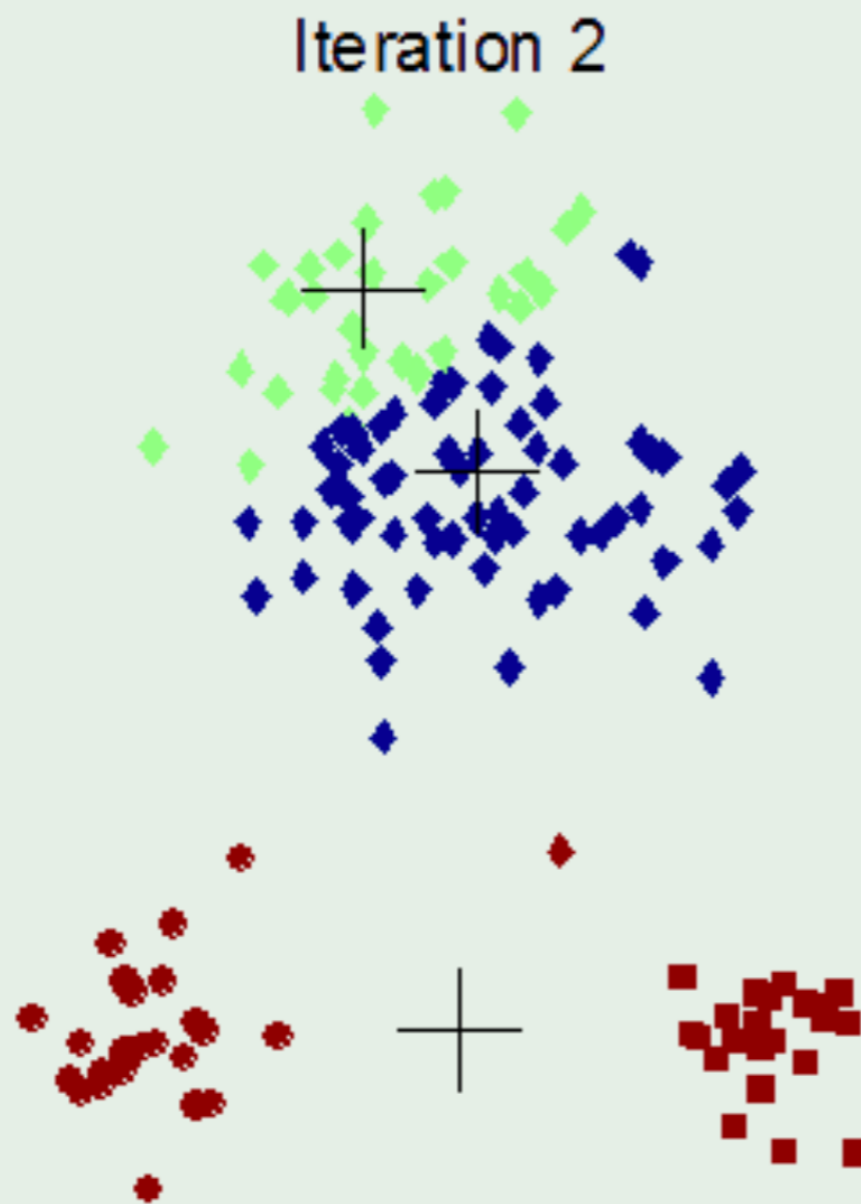
k-Means

Example (Bad initialization)



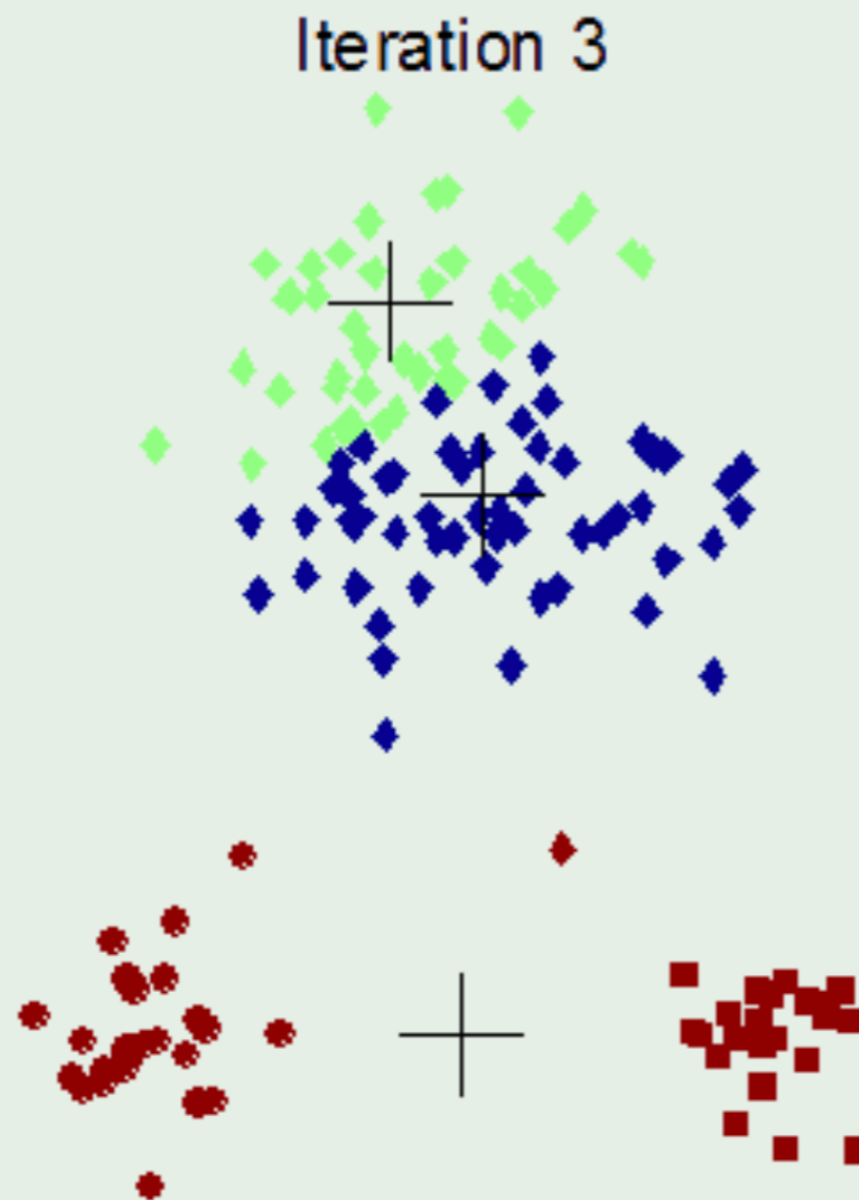
k-Means

Example (Bad initialization)



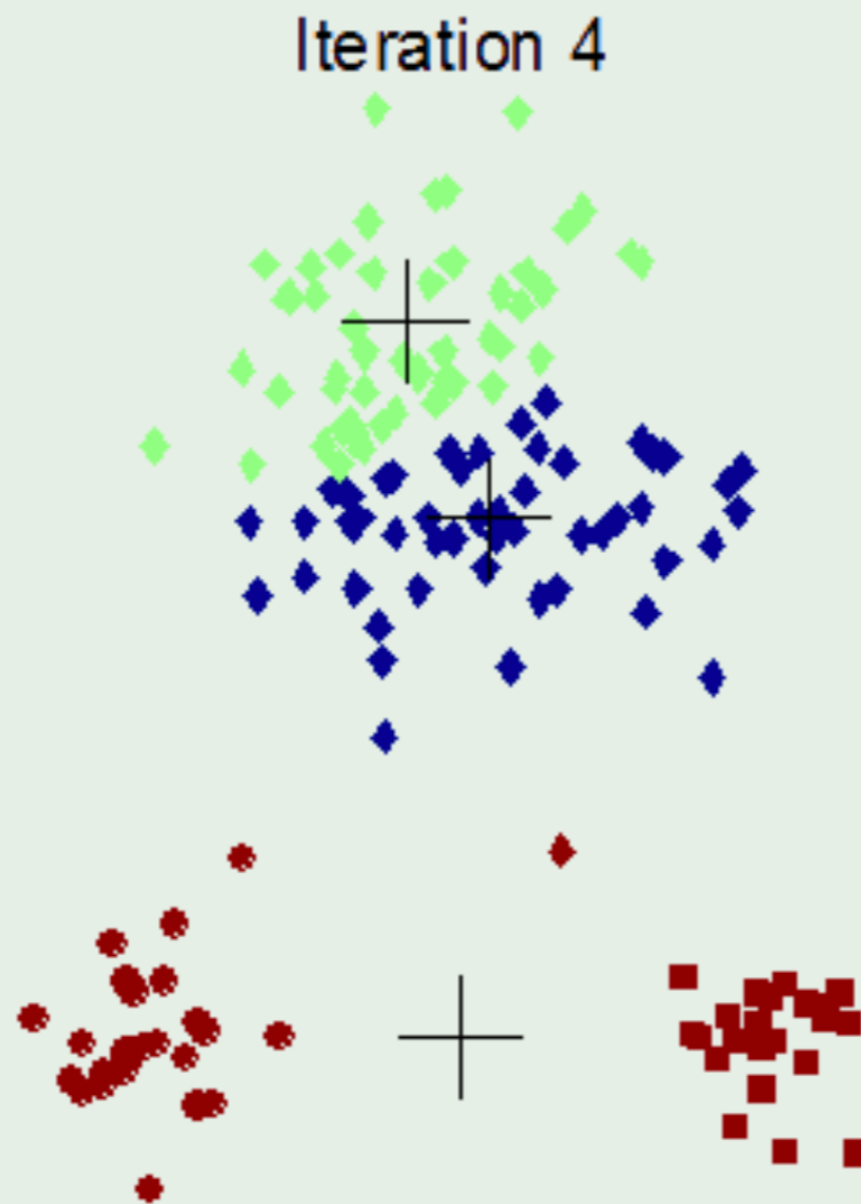
k-Means

Example (Bad initialization)



k-Means

Example (Bad initialization)



k-Means

Example (Bad initialization)

