

Clustering via LP-based Stabilities

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Powerful clustering algorithm based on LP-duality theory:

- ✓ Clusterings of almost optimal cost
- ✓ Online optimality bounds
- ✓ Automatic determination of number of clusters
- ✓ Independent of initialization (unlike, e.g., EM-like methods)
- ✓ Guaranteed convergence (no need to tweak any parameters)
- ✓ Applicable to any type of distances

Novel method for automatic cluster center selection:

- ✓ LP-based **stabilities**
 - ✓ LP-based **margins**
- newly introduced concepts
dual to each other
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