

**CONTENTS****1. ALGORITHMS AND APPLICATIONS**

- 1.1 Introduction
- 1.2 Matrix reordering techniques
- 1.3 Distance and dissimilarity
- 1.4 Graph-theoretic approaches
- 1.5 Hierarchical and non-hierarchical methods
- 1.6 References

**2. FAST NEAREST NEIGHBOUR SEARCHING**

- 2.1 Introduction
- 2.2 Hashing
- 2.3 Multidimensional binary search tree
- 2.4 Bounding using projections or the Euclidean distance
- 2.5 Bounding using the triangular inequality
- 2.6 Nearest neighbour algorithms in information retrieval
- 2.7 Open problems
- 2.8 References

**3. SYNOPTIC CLUSTERING**

- 3.1 Introduction
- 3.2 Minimum variance method in perspective
- 3.3 Geometric agglomerative methods
- 3.4 Minimum variance method : mathematical properties
- 3.5 Reducibility property
- 3.6 Multiple cluster algorithm
- 3.7 Single cluster algorithm
- 3.8 References

**4. CONNECTIVITY CLUSTERING**

- 4.1 Introduction
- 4.2 Single link method in perspective
- 4.3 Traditional minimal spanning tree algorithms
- 4.4 Minimal spanning tree using fast nearest neighbour searching
- 4.5 Minimal spanning tree of sparse and planar graphs
- 4.6 Extension : mode analysis
- 4.7 References

**5. NEW CLUSTERING PROBLEMS**

- 5.1 Introduction
- 5.2 Contiguity-constrained clustering
- 5.3 Clustering of interaction data
- 5.4 References