For Single Linkage clusters are:

cluster no: 1: number of elements in cluster is 84

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Heuristic Search and Optimization

Heuristic Search and Optimization

Heuristic Search and Optimization

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Heuristic Search and Optimization

Constraints and Satisfiability

Constraints and Satisfiability

Constraints and Satisfiability

Constraints and Satisfiability

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cluster no: 2: number of elements in cluster is 8

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cluster no: 3: number of elements in cluster is 48

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- **Natural Language Processing**
- **Natural Language Processing**
- **Natural Language Processing**
- Natural Language Processing
- **Natural Language Processing**
- Natural Language Processing
- **Natural Language Processing**
- **Natural Language Processing**
- Natural Language Processing
- Natural Language Processing
- **Natural Language Processing**

Knowledge Representation and Reasoning

cluster no: 4: number of elements in cluster is 5

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Knowledge Representation and Reasoning

Knowledge Representation and Reasoning

Constraints and Satisfiability

cluster no: 5 : number of elements in cluster is 1 Multiagent Systems

cluster no: 6 : number of elements in cluster is 1 Natural Language Processing

cluster no: 7 : number of elements in cluster is 1 Knowledge Representation and Reasoning

cluster no: 8 : number of elements in cluster is 1 Knowledge Representation and Reasoning

cluster no: 9 : number of elements in cluster is 1 Reasoning about Plans, Processes, and Actions

With Complete linkage clusters are:

cluster no: 1: number of elements in cluster is 142

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cluster no: 2 : number of elements in cluster is 1 Machine Learning

cluster no: 3 : number of elements in cluster is 1 Multiagent Systems

cluster no: 4 : number of elements in cluster is 1 Multiagent Systems

cluster no: 5 : number of elements in cluster is 1 Natural Language Processing

cluster no: 6 : number of elements in cluster is 1 Machine Learning

cluster no: 7 : number of elements in cluster is 1 Machine Learning

cluster no: 8 : number of elements in cluster is 1 Natural Language Processing

cluster no: 9 : number of elements in cluster is 1 Multiagent Systems

With Girvan Newman Algo(Threshold = 0.001):

cluster no: 1 : number of elements in cluster is 62 Reasoning about Plans, Processes, and Actions Machine Learning Natural Language Processing **Robotics**

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cluster no: 2: number of elements in cluster is 43

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cluster no: 3: number of elements in cluster is 16 Knowledge Representation and Reasoning Reasoning about Plans, Processes, and Actions Heuristic Search and Optimization Knowledge Representation and Reasoning Reasoning about Plans, Processes, and Actions Knowledge Representation and Reasoning Reasoning about Plans, Processes, and Actions Reasoning about Plans, Processes, and Actions Reasoning about Plans, Processes, and Actions Knowledge Representation and Reasoning Reasoning about Plans, Processes, and Actions Reasoning about Plans, Processes, and Actions Reasoning about Plans, Processes, and Actions Knowledge Representation and Reasoning Knowledge Representation and Reasoning Knowledge Representation and Reasoning

cluster no: 4: number of elements in cluster is 9
Reasoning about Plans, Processes, and Actions
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cluster no: 5 : number of elements in cluster is 6 Constraints and Satisfiability Reasoning about Plans, Processes, and Actions Constraints and Satisfiability Constraints and Satisfiability Constraints and Satisfiability Constraints and Satisfiability

cluster no: 6 : number of elements in cluster is 5 Robotics Knowledge Representation and Reasoning Knowledge Representation and Reasoning Knowledge Representation and Reasoning Knowledge Representation and Reasoning

cluster no: 7: number of elements in cluster is 4

Machine Learning Multiagent Systems Machine Learning Machine Learning

cluster no: 8 : number of elements in cluster is 4 Constraints and Satisfiability Knowledge Representation and Reasoning Knowledge Representation and Reasoning Knowledge Representation and Reasoning

cluster no: 9 : number of elements in cluster is 1 Natural Language Processing

Normalised Mutual Information:

0.7249202682018384(single linkage) 0.5459851015044679(complete linkage) 0.8757807323761941(girvan newmann)

3) Tried diffent thresholds. With 0.1 the NMI is coming as 0.866, whereas with 0.01 and below the NMI stops improving and stays at 0.8757.