



PROJECT OVERVIEW



- ▶ Allow universities to share their courseware through LMS.
- ▶ Make searching of the course resources across all the LMS servers efficient
 - ▶ Connect these LMS servers in a P2P fashion
 - ▶ Develop an algorithm to provide quick search facility, effectively turning the network into a Semantic Overlay Network.

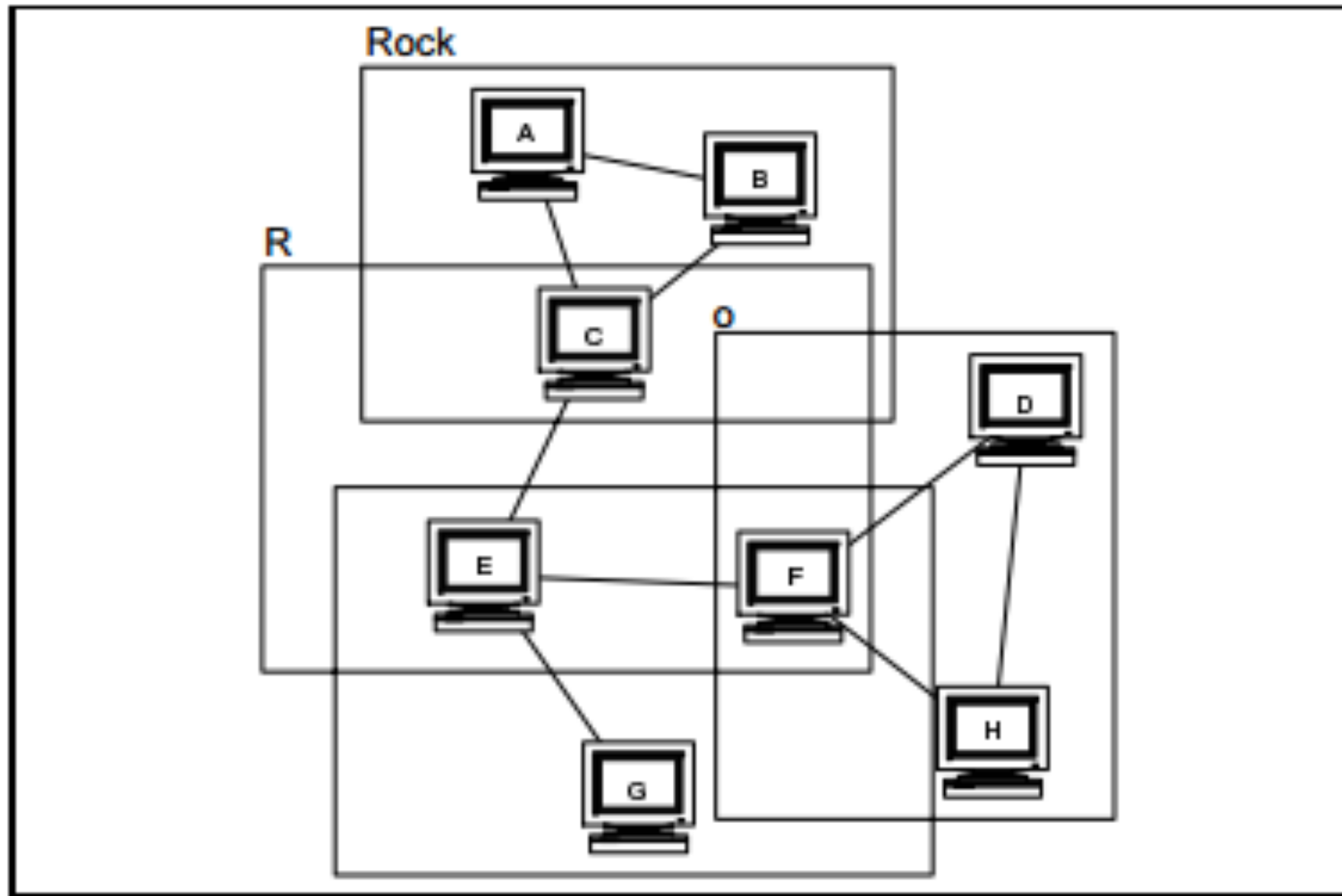
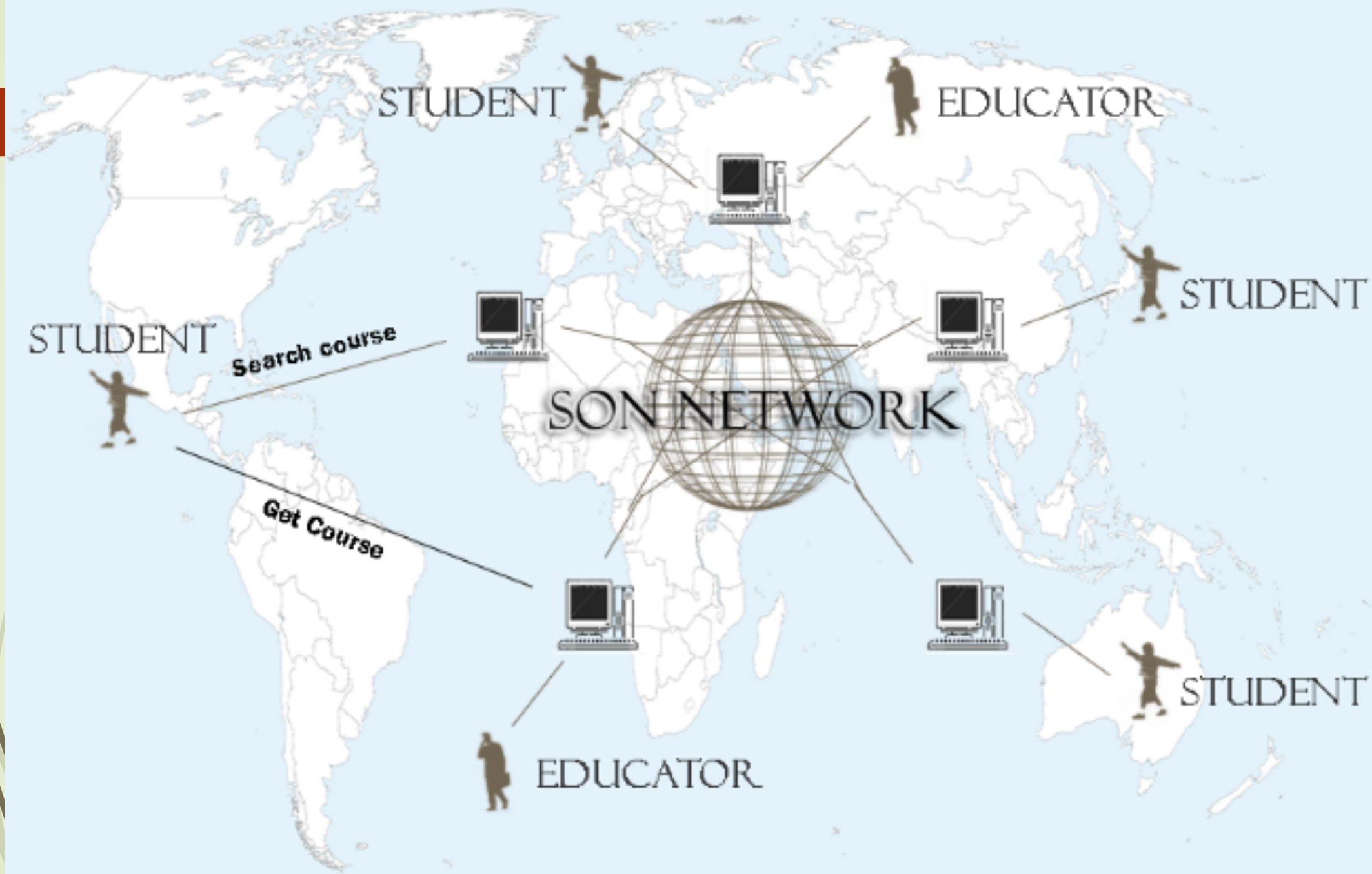


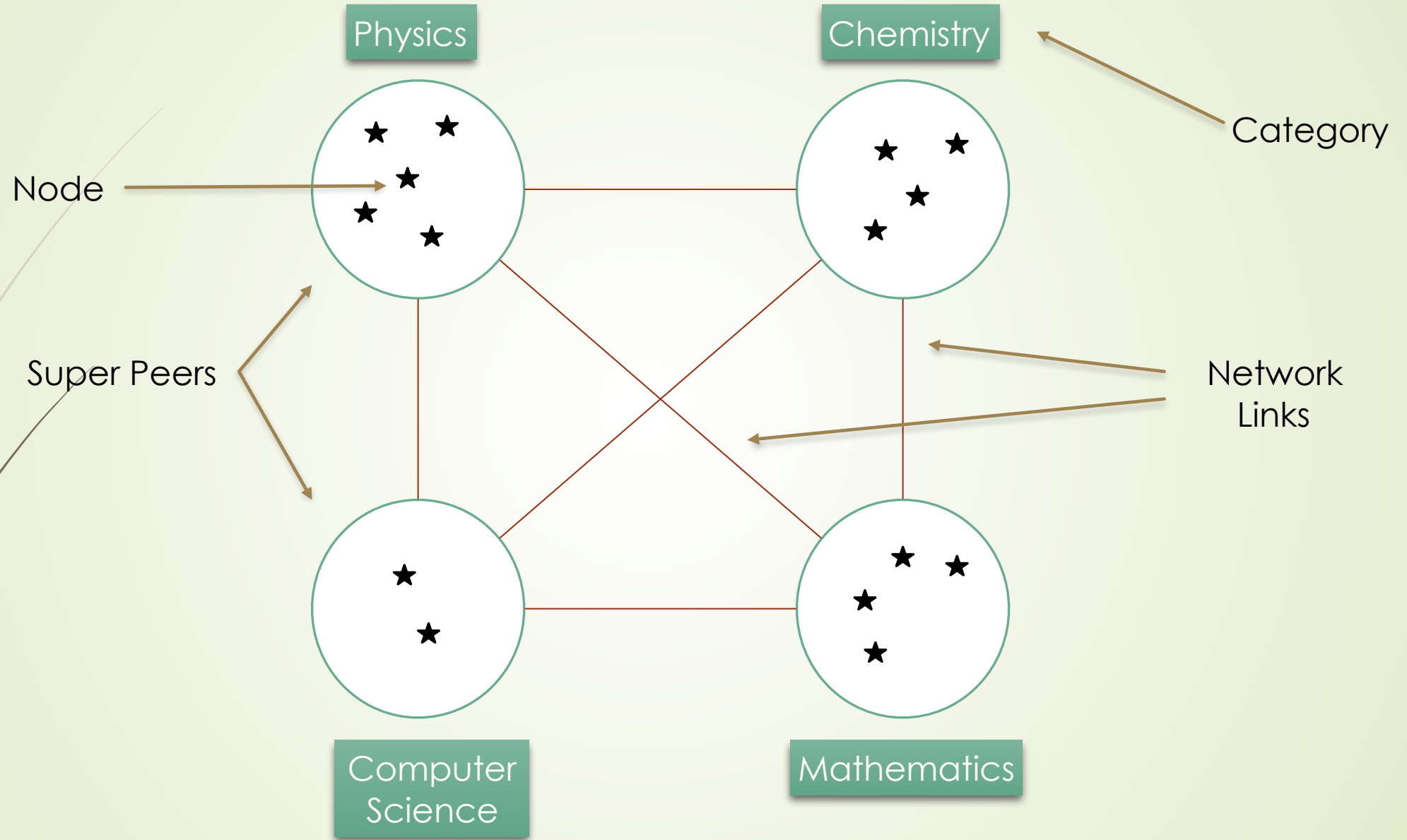
Fig. 1. Semantic Overlay Networks



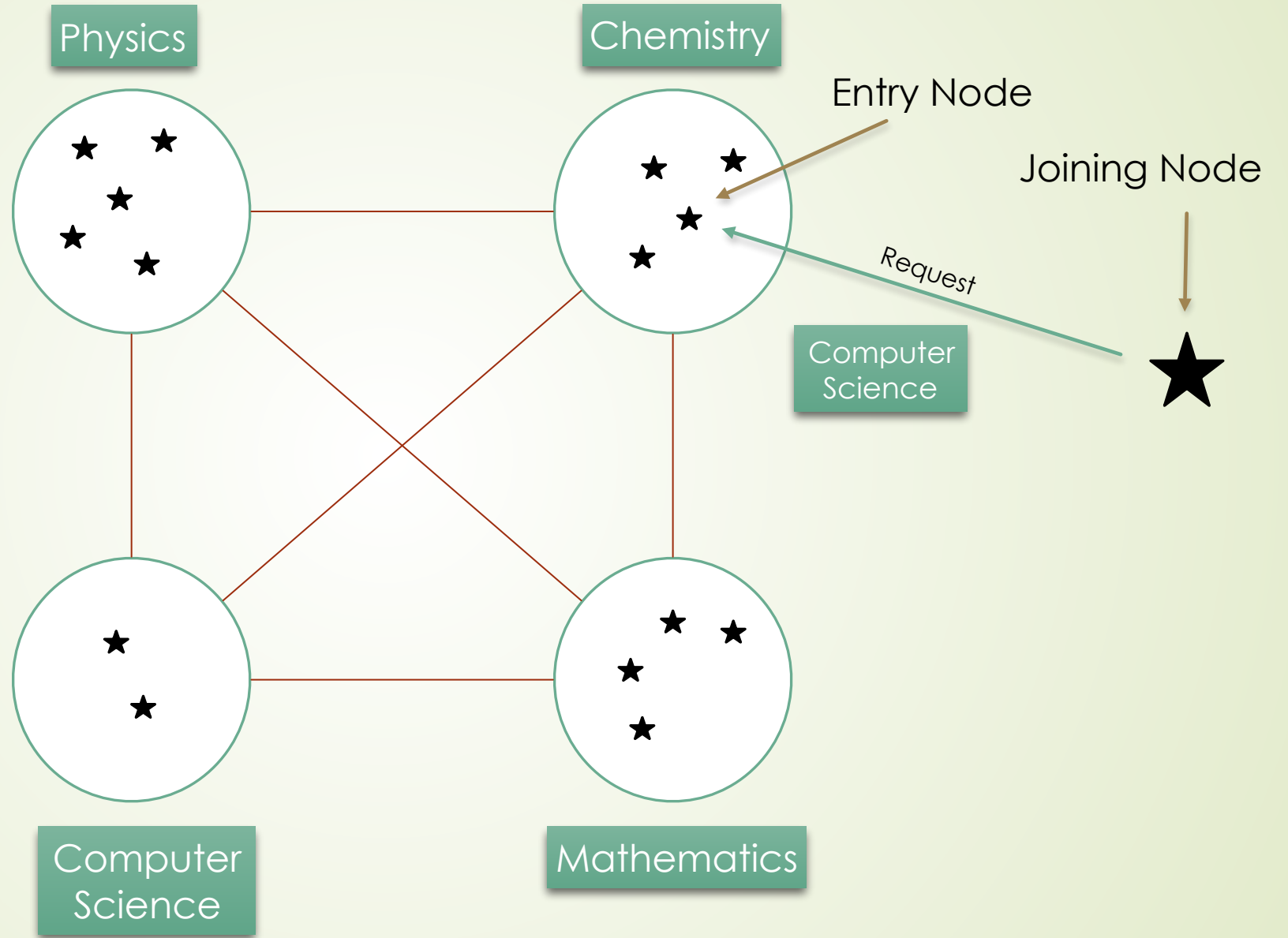


Network Join

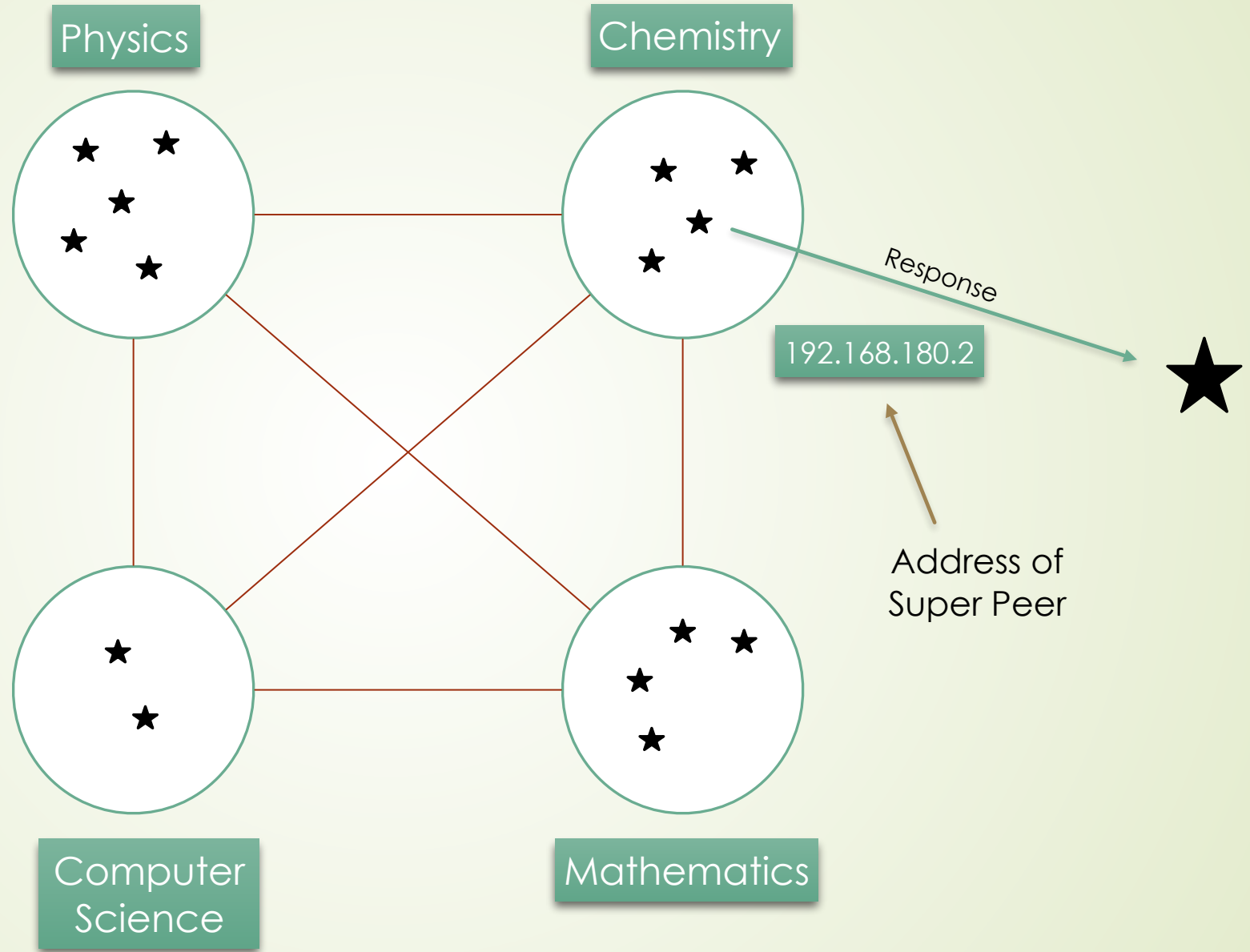
Network Join



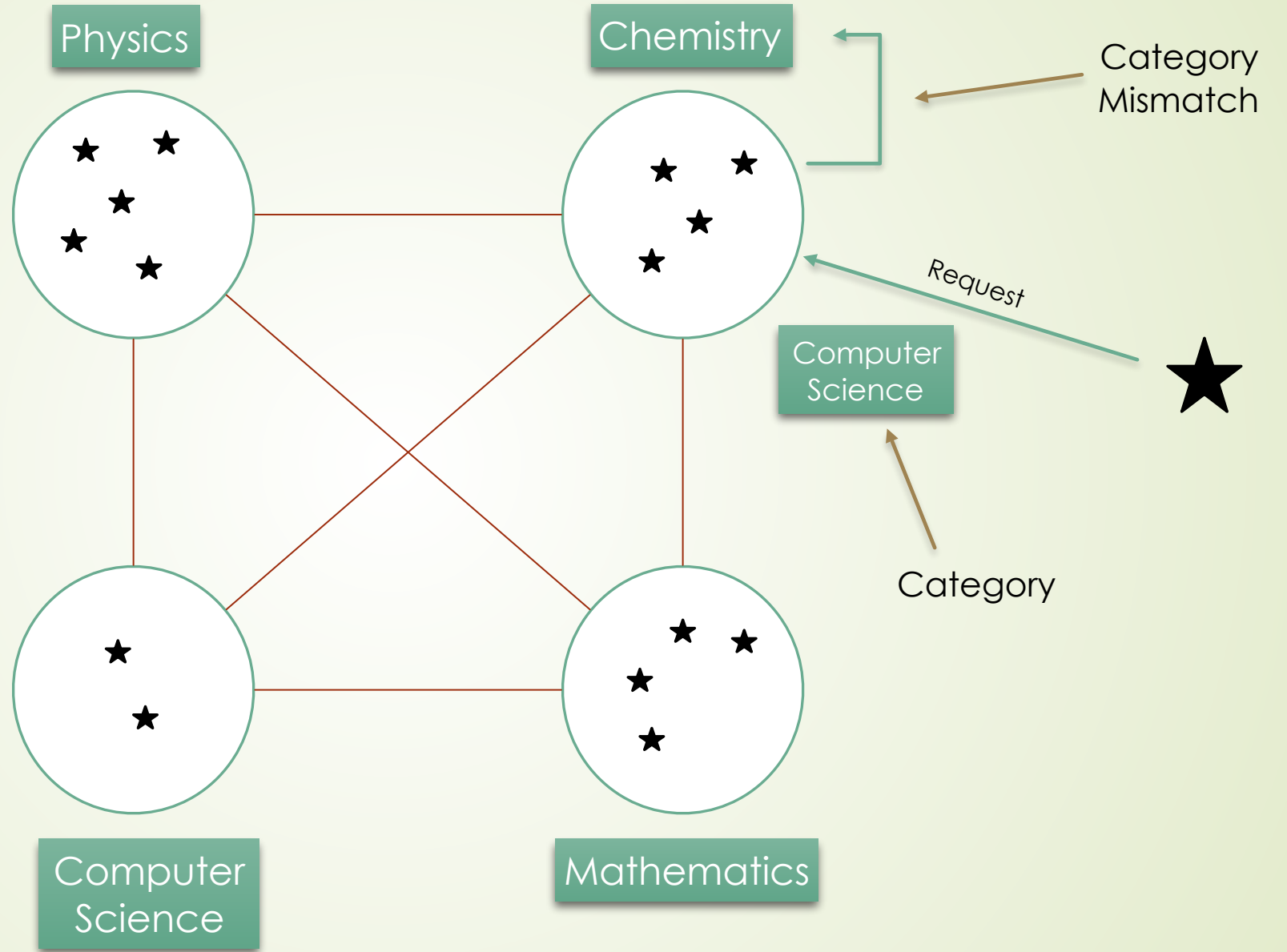
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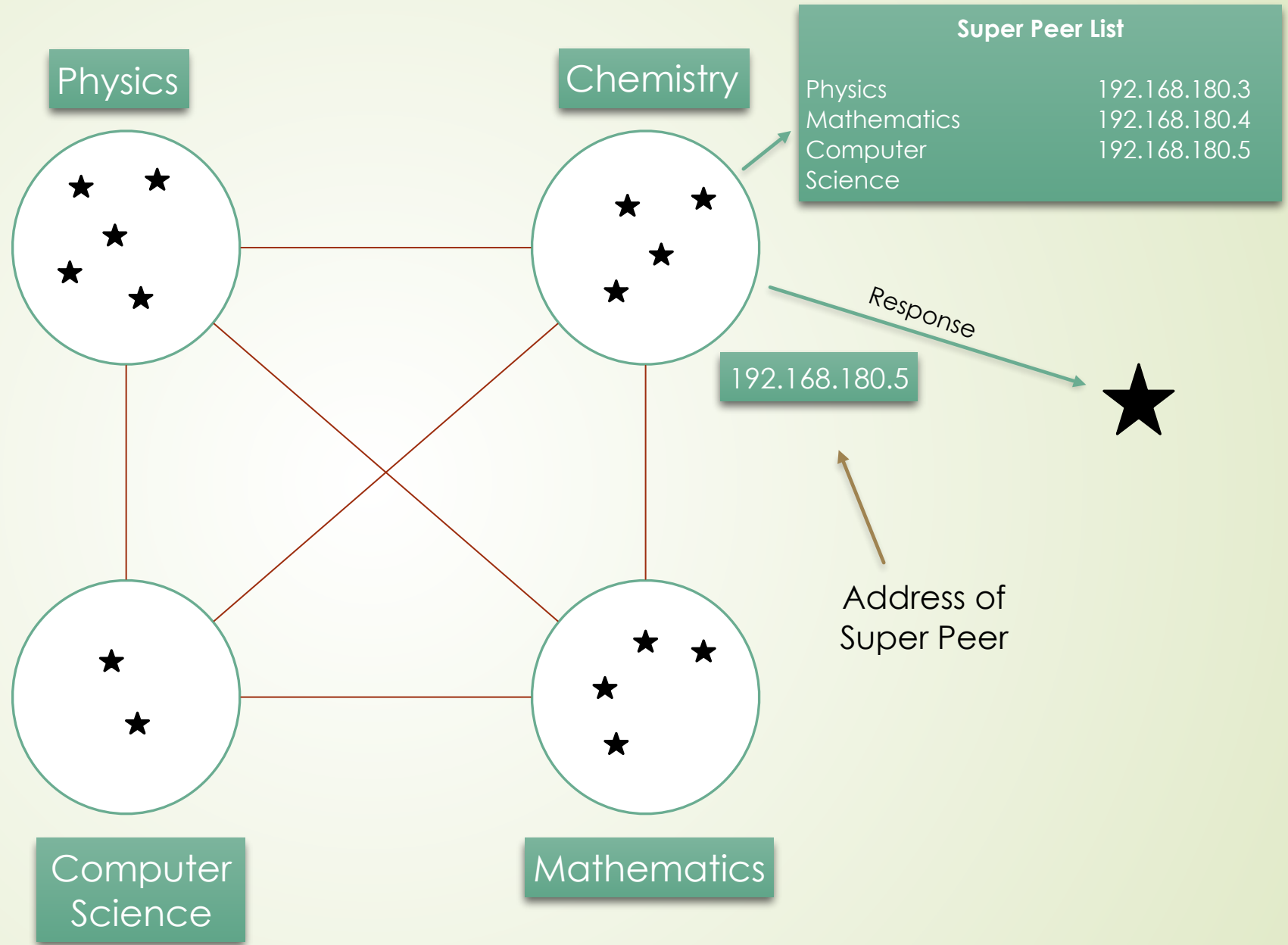
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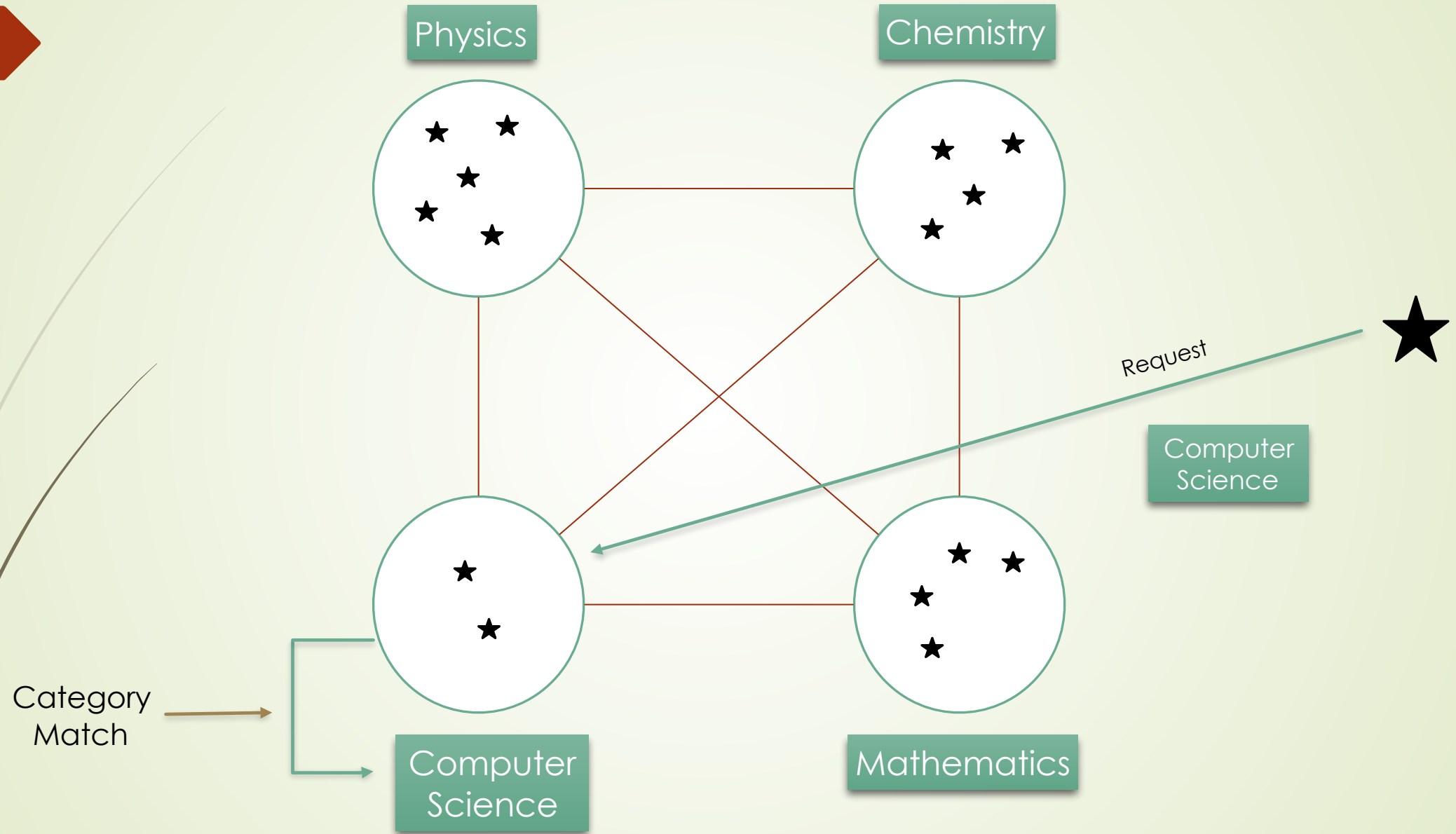
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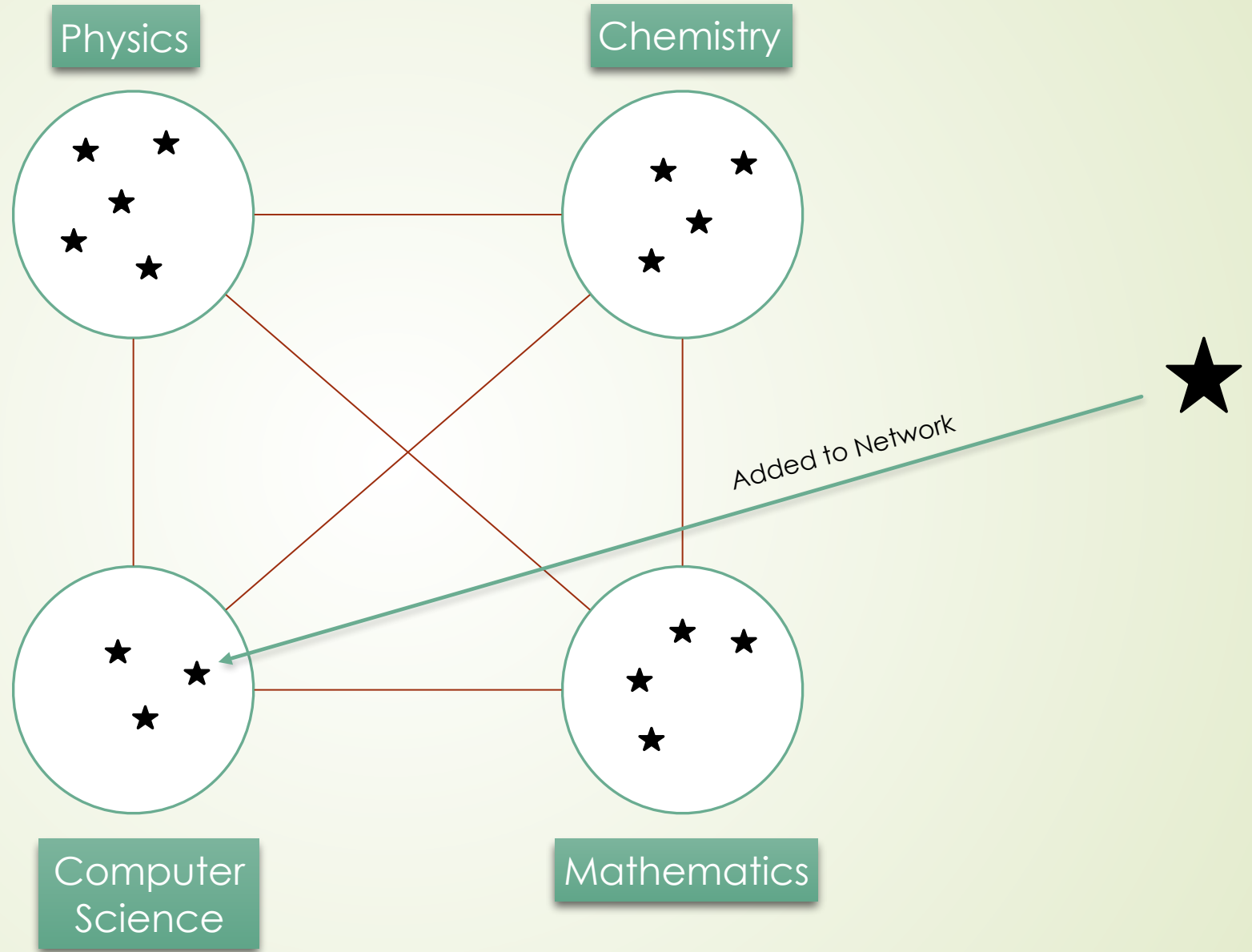
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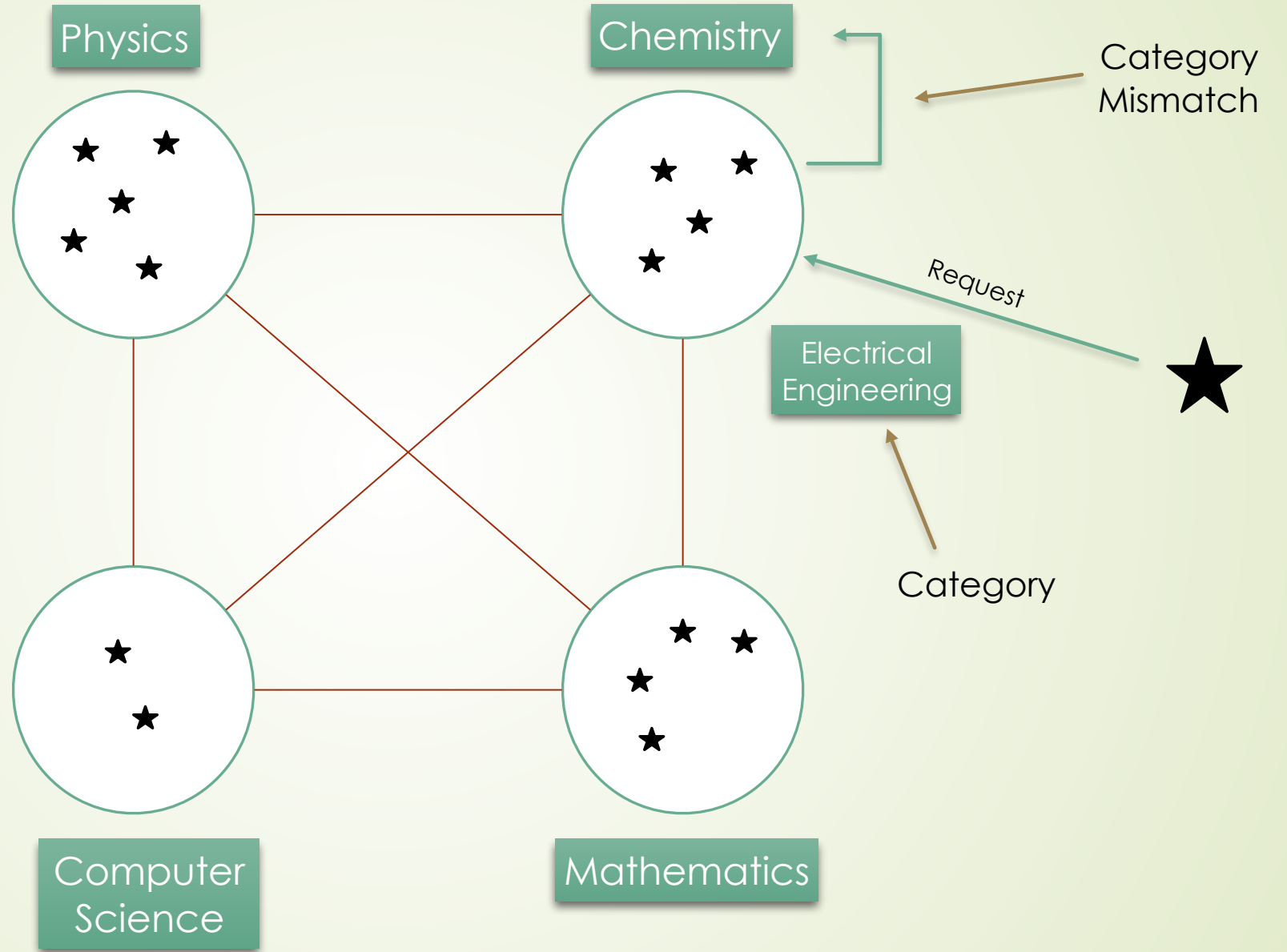
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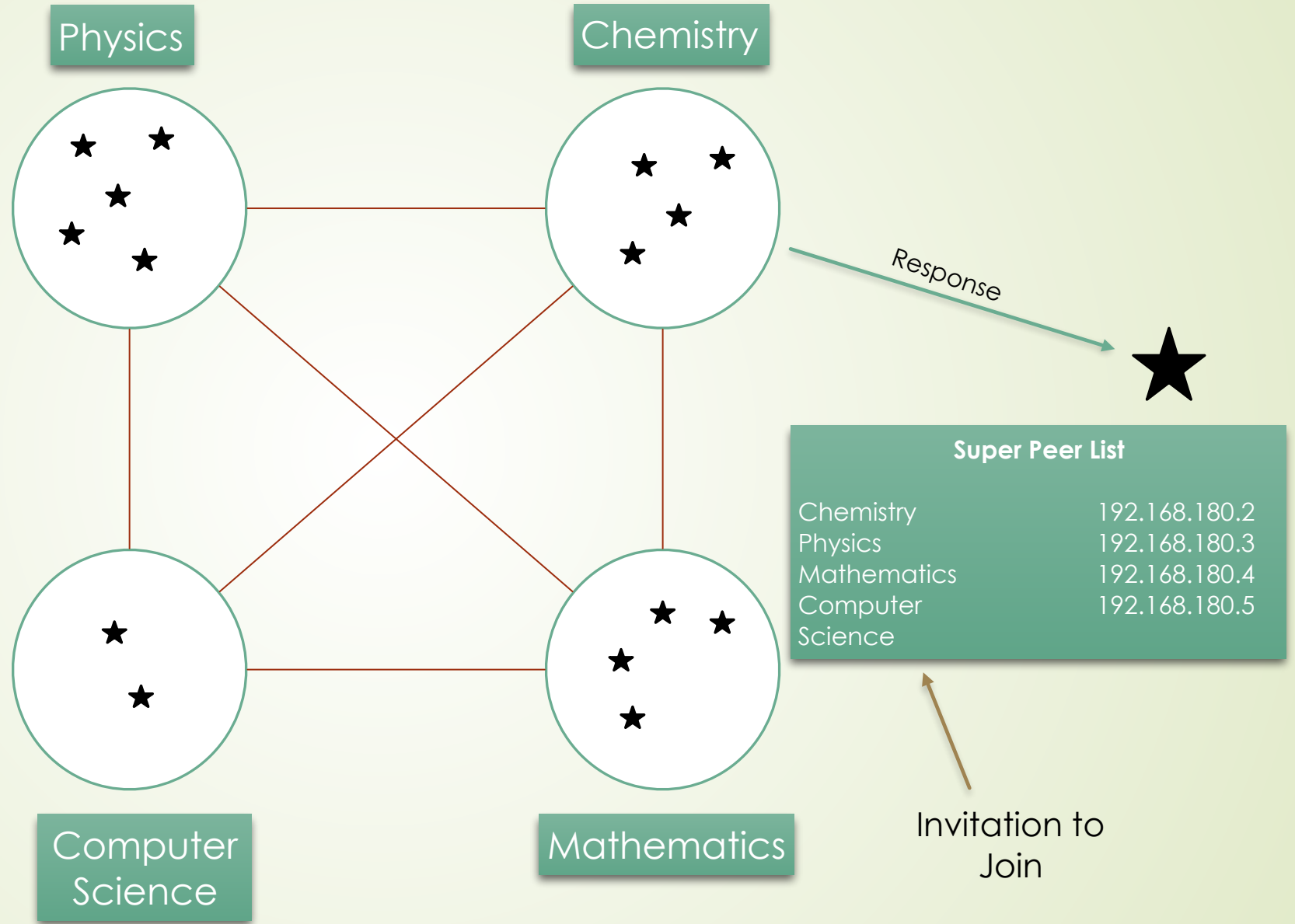
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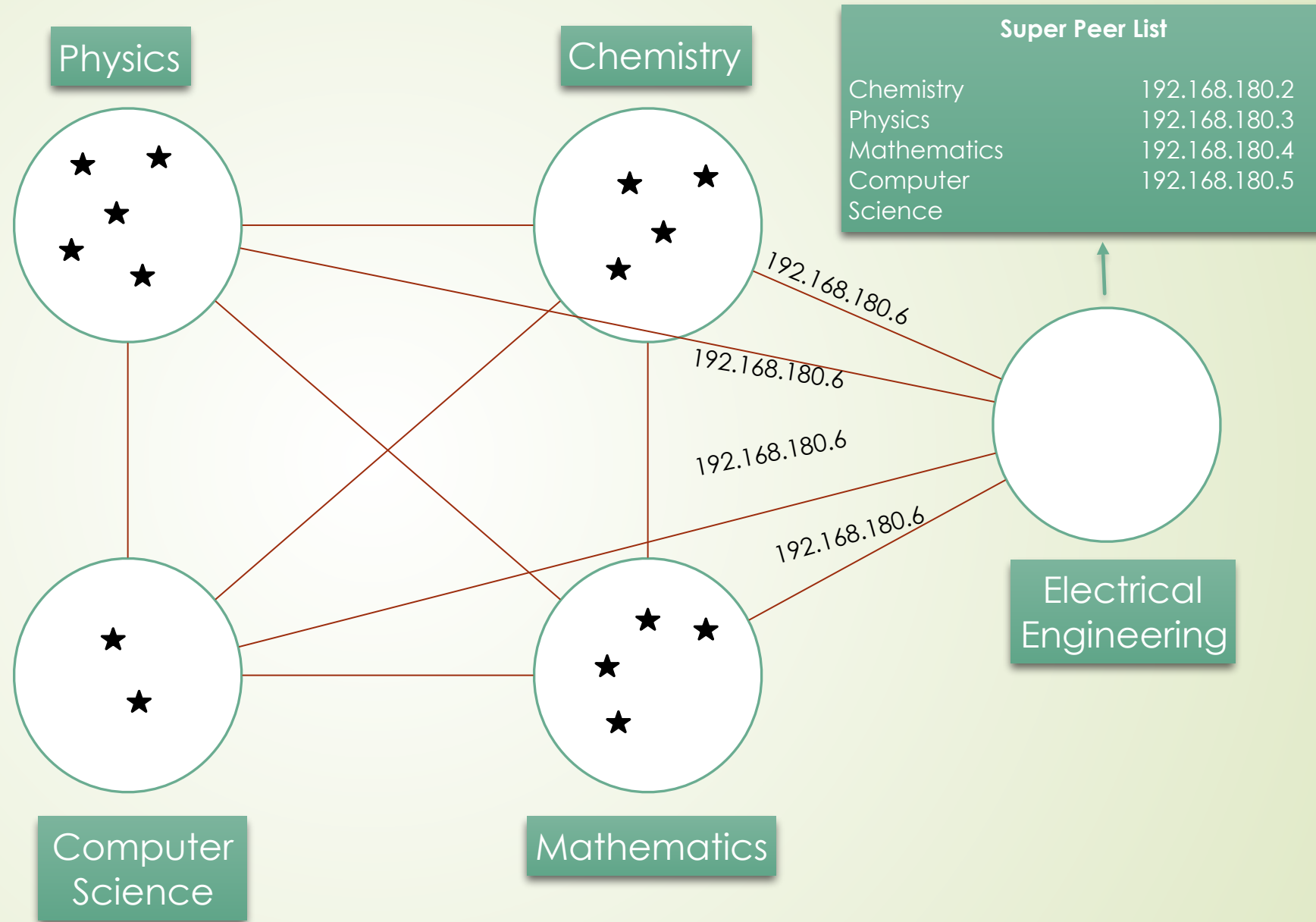
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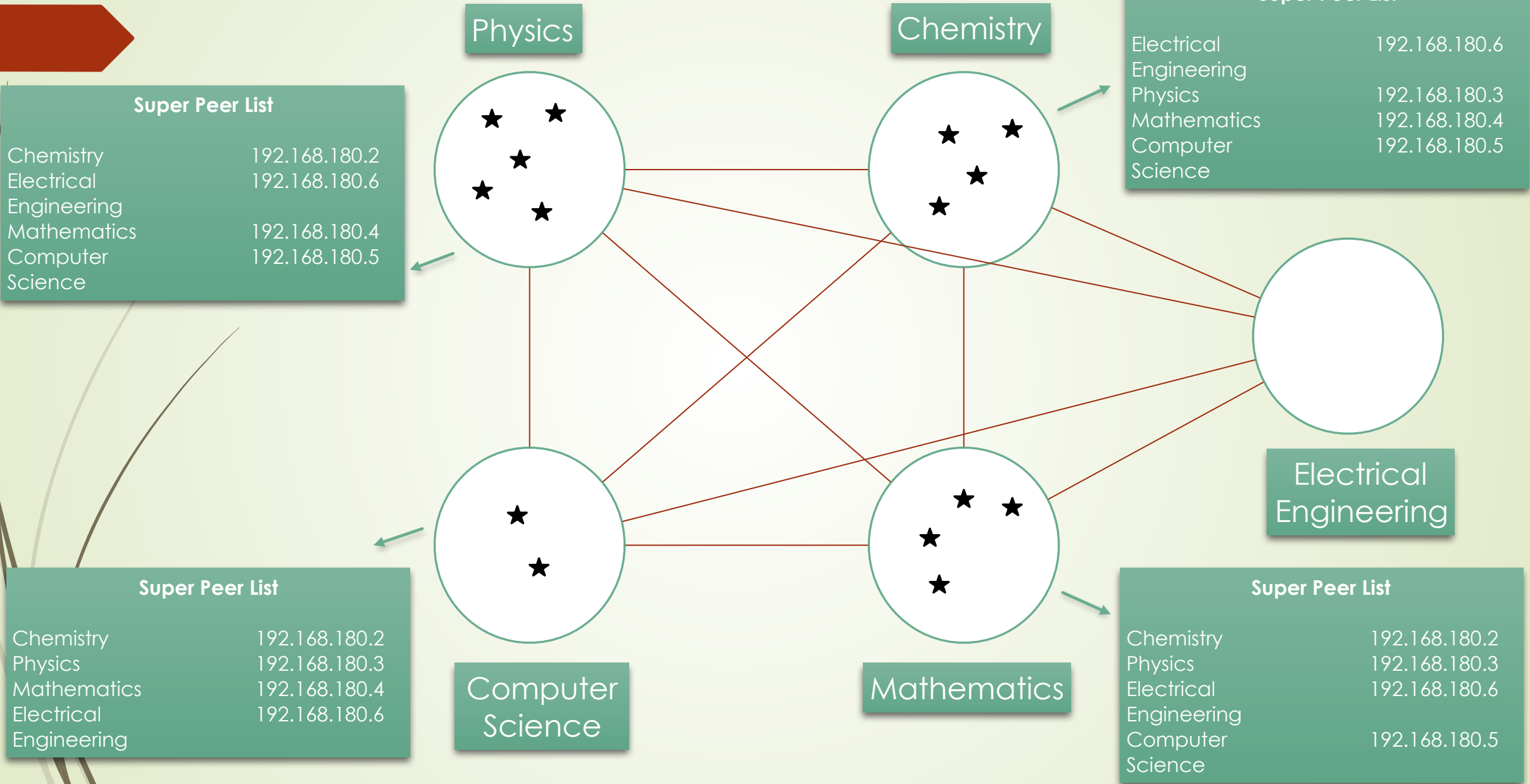
Network Join



Network Join



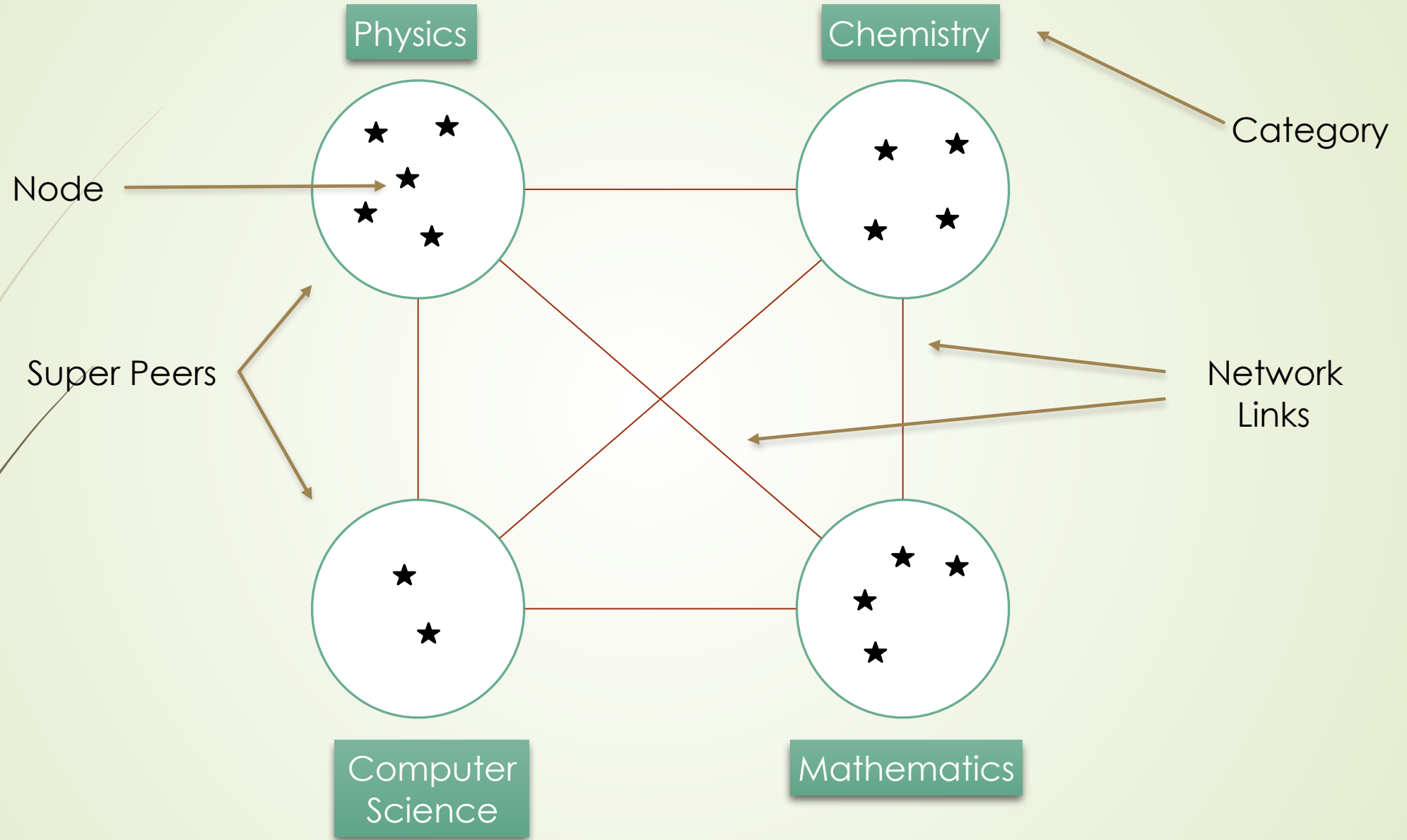
Network Join



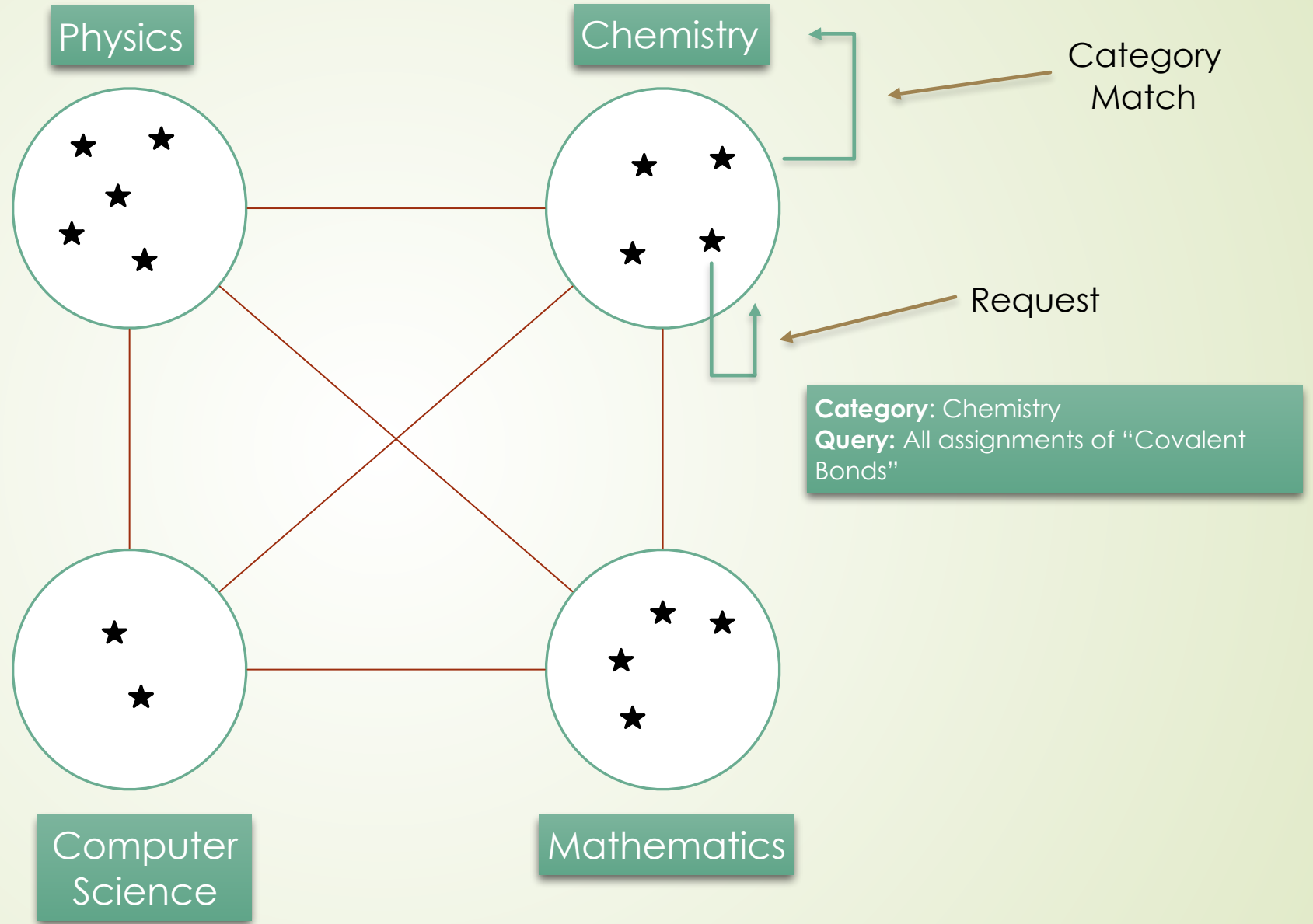


Query Resolution

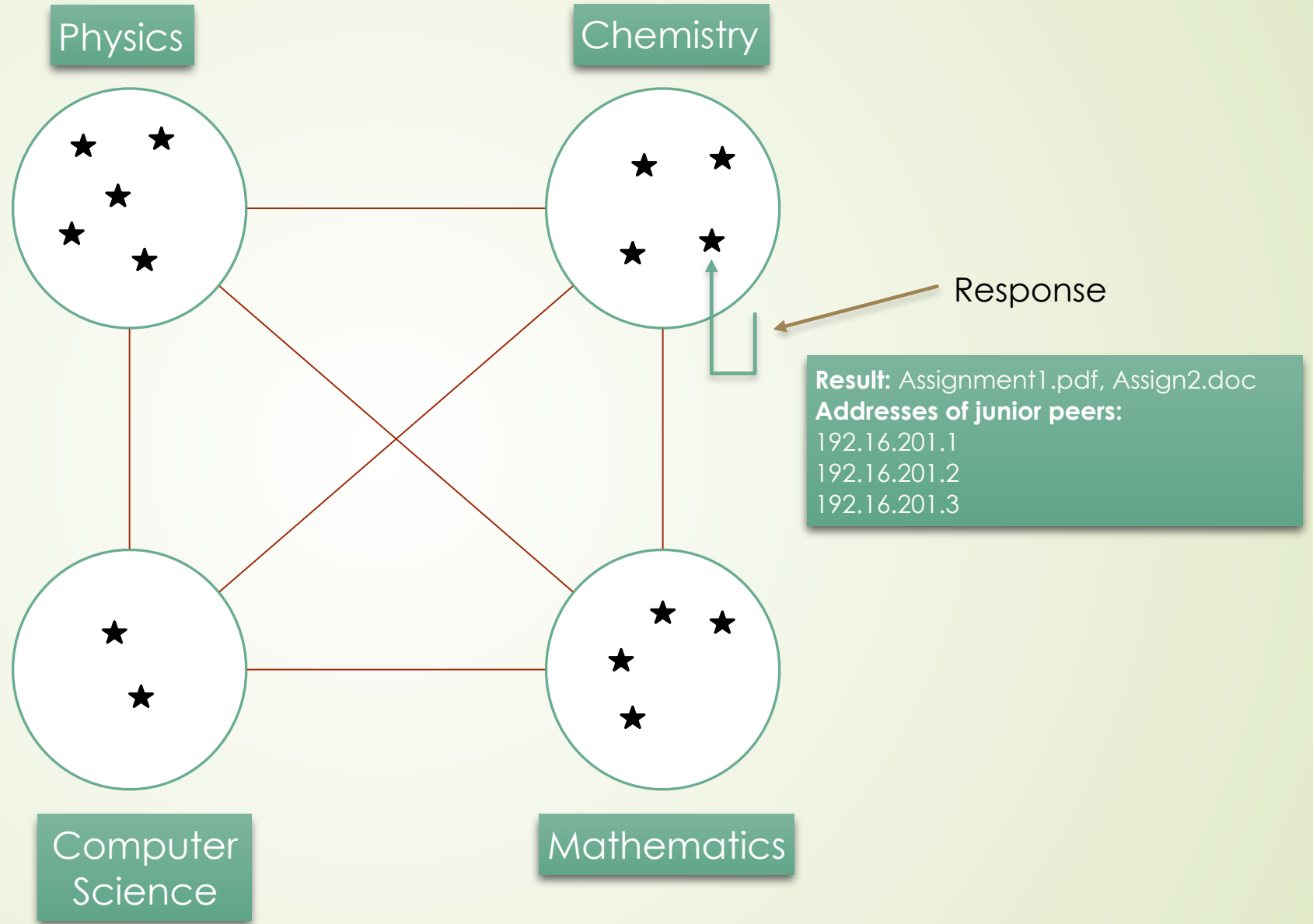
Query Resolution



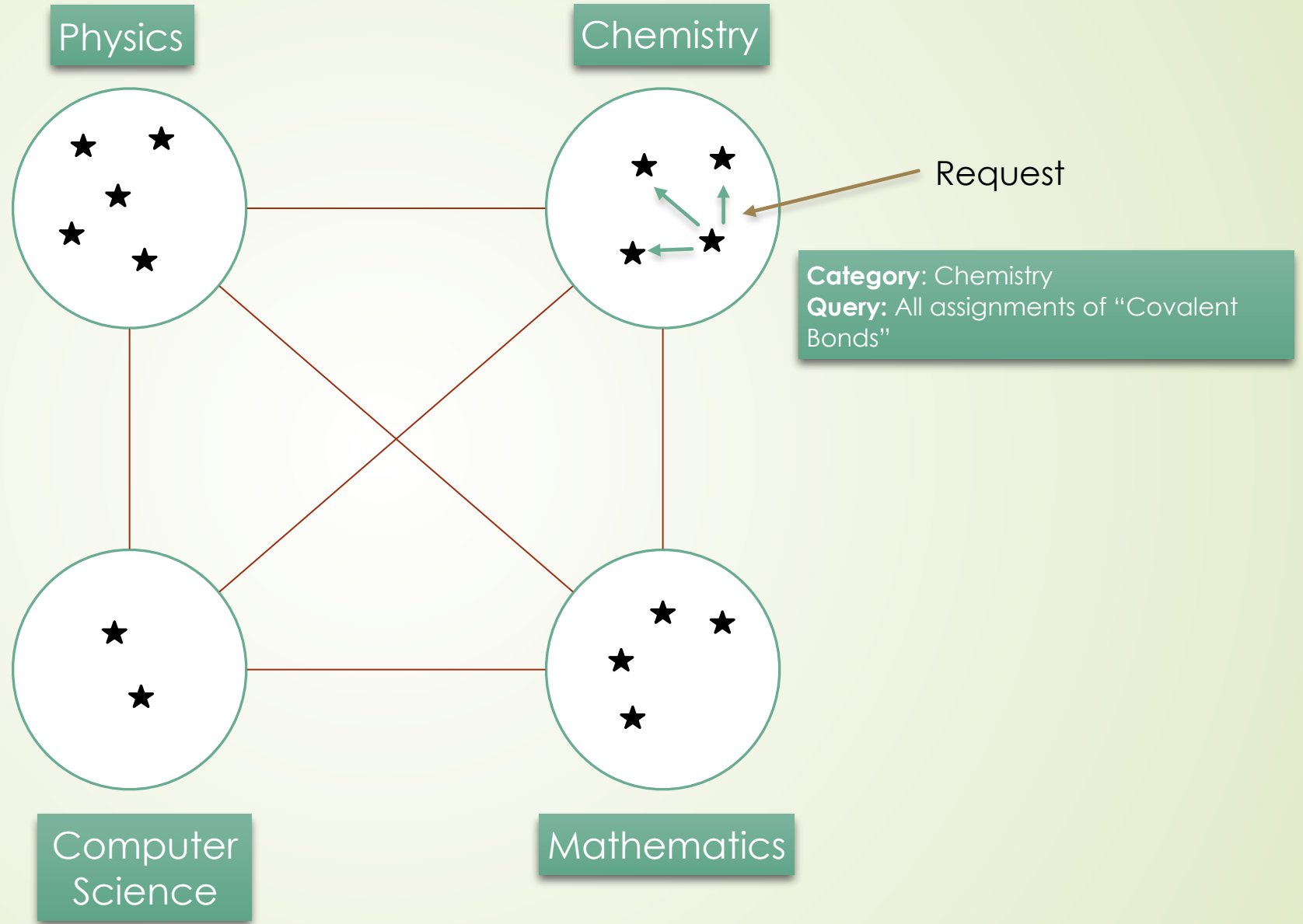
Query Resolution



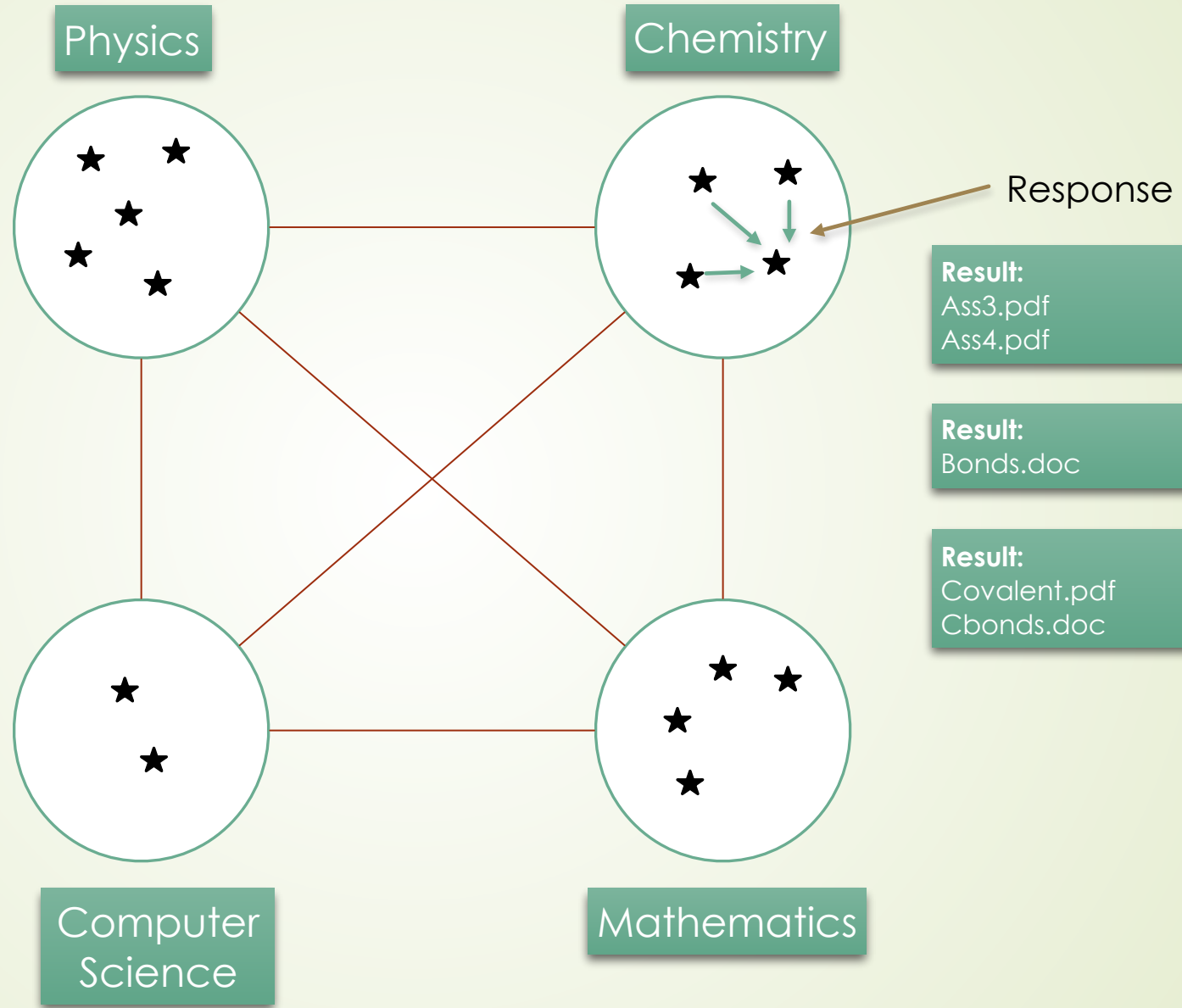
Query Resolution



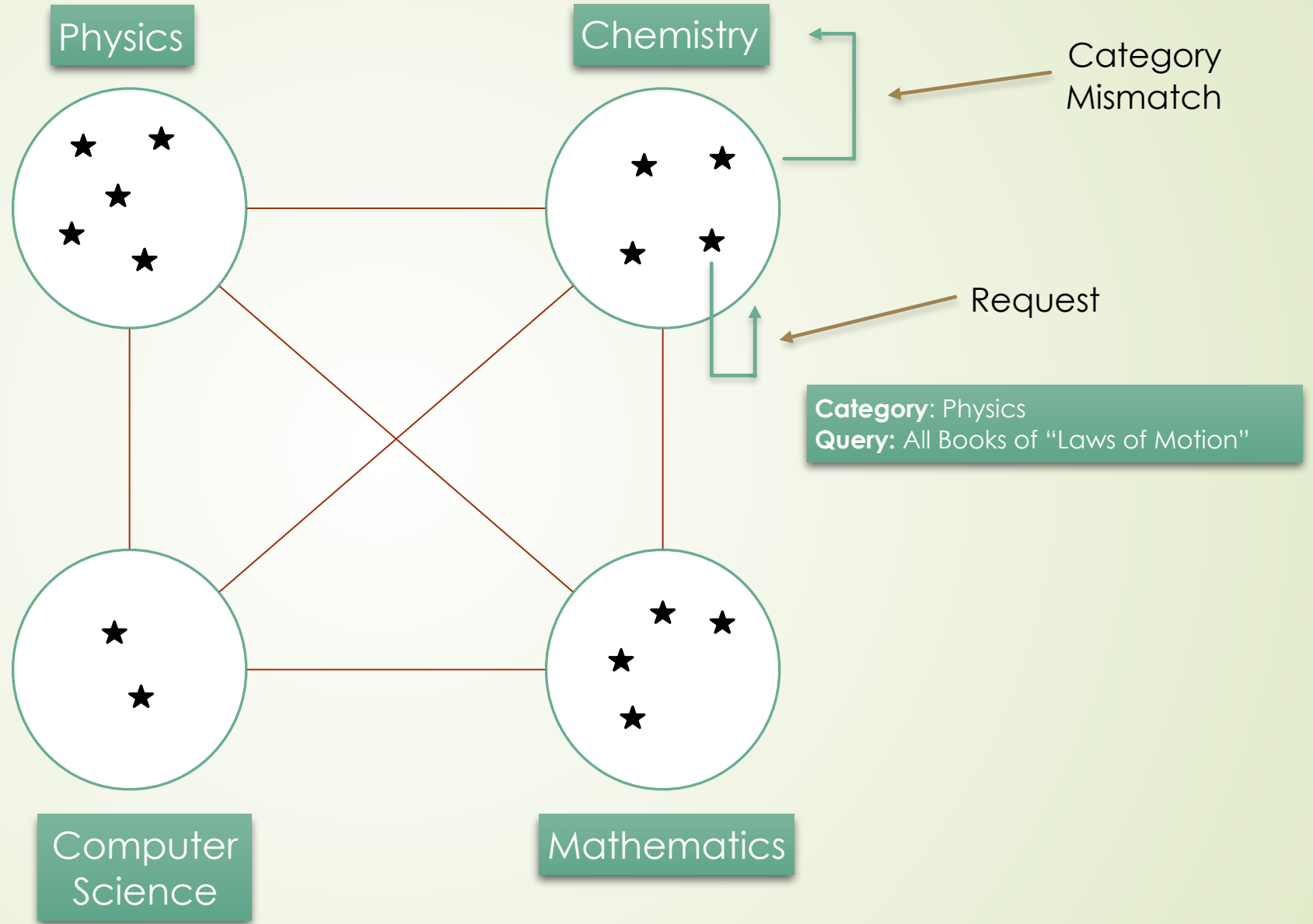
Query Resolution



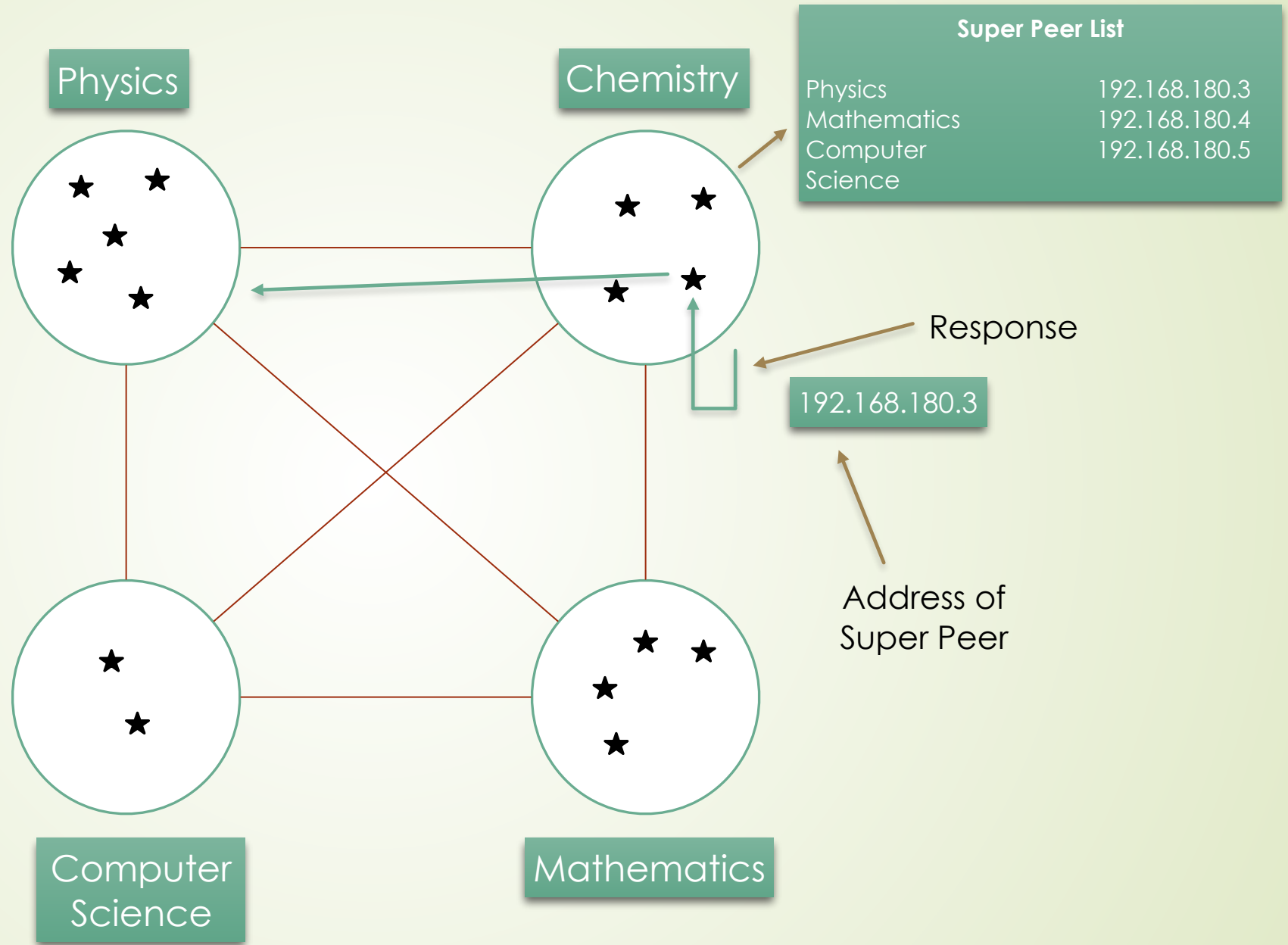
Query Resolution



Query Resolution



Query Resolution

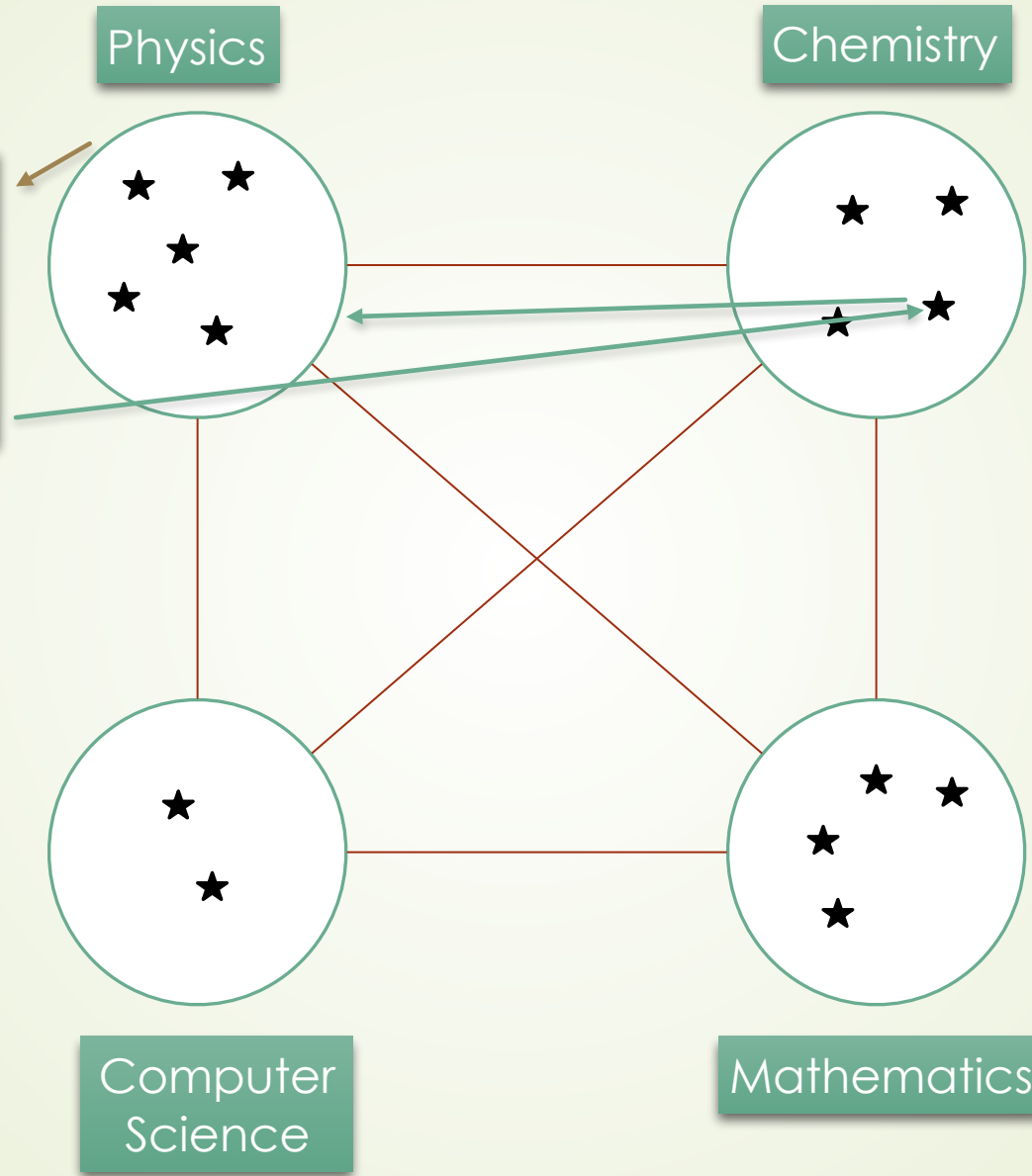


Query Resolution

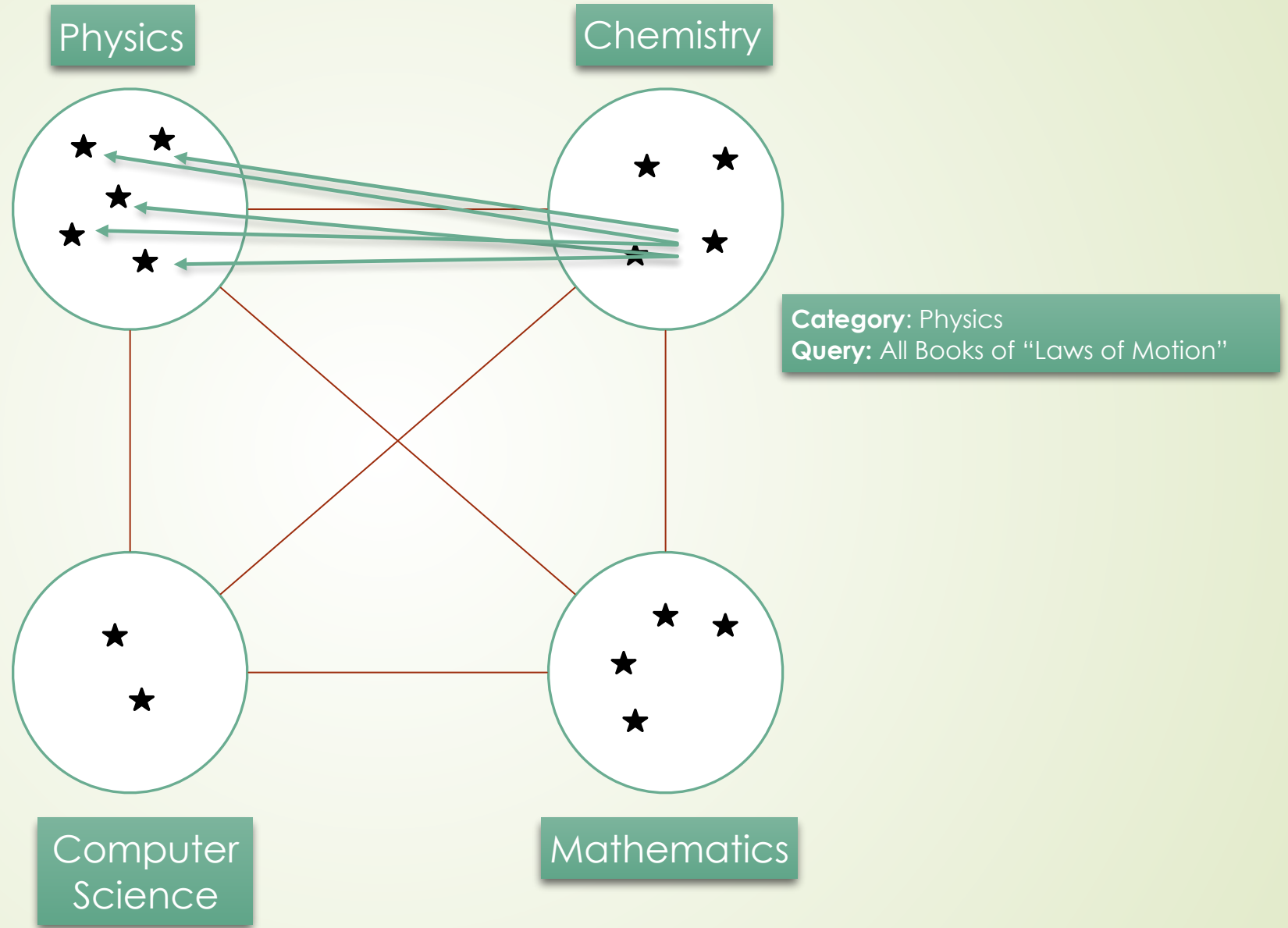
Result: Physics1.pdf

Addresses of junior peers:

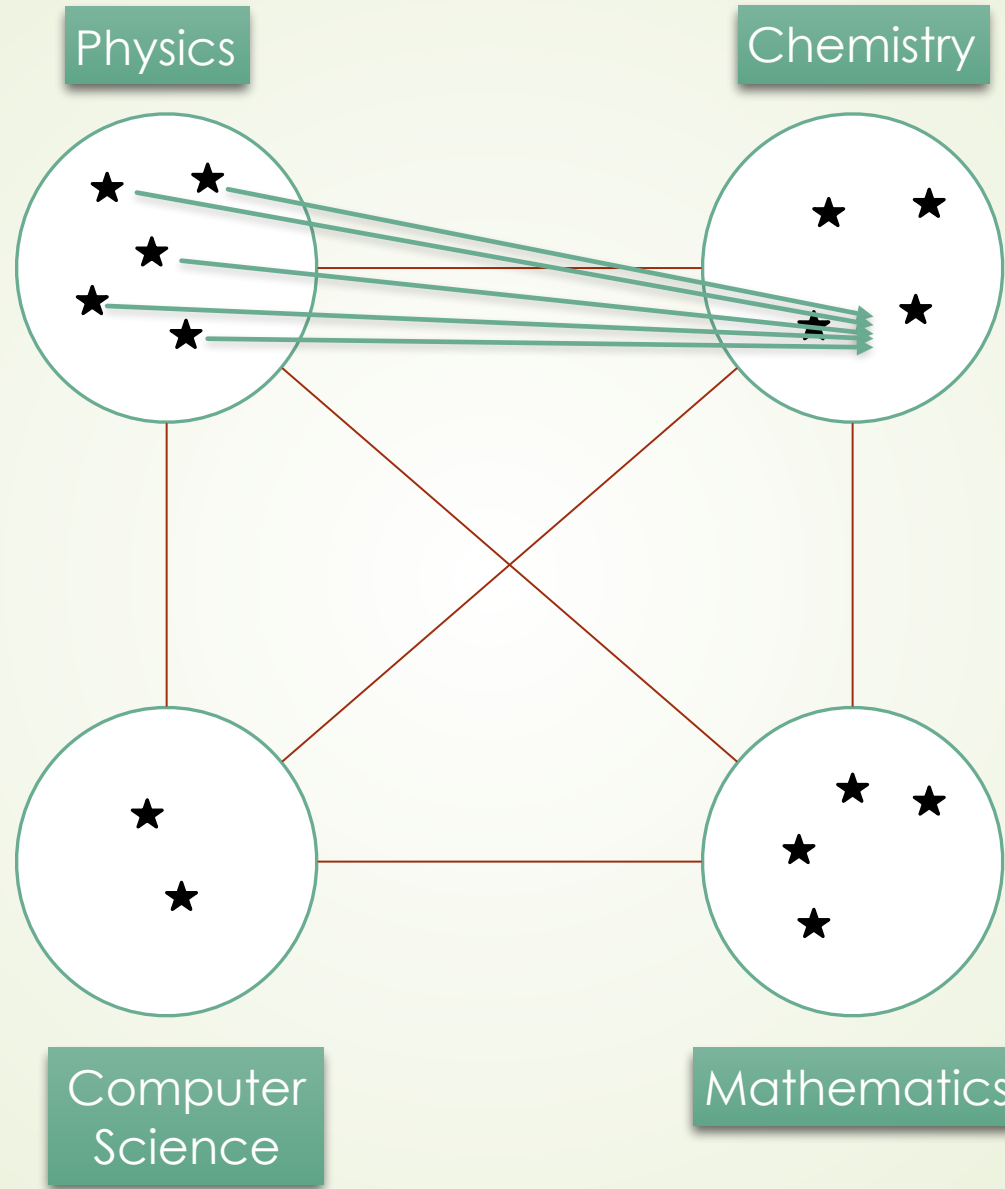
192.168.10.3
192.168.10.4
192.168.10.5
192.168.10.6
192.168.10.7



Query Resolution



Query Resolution



Document: One Step Physics

Document: Two Step Physics

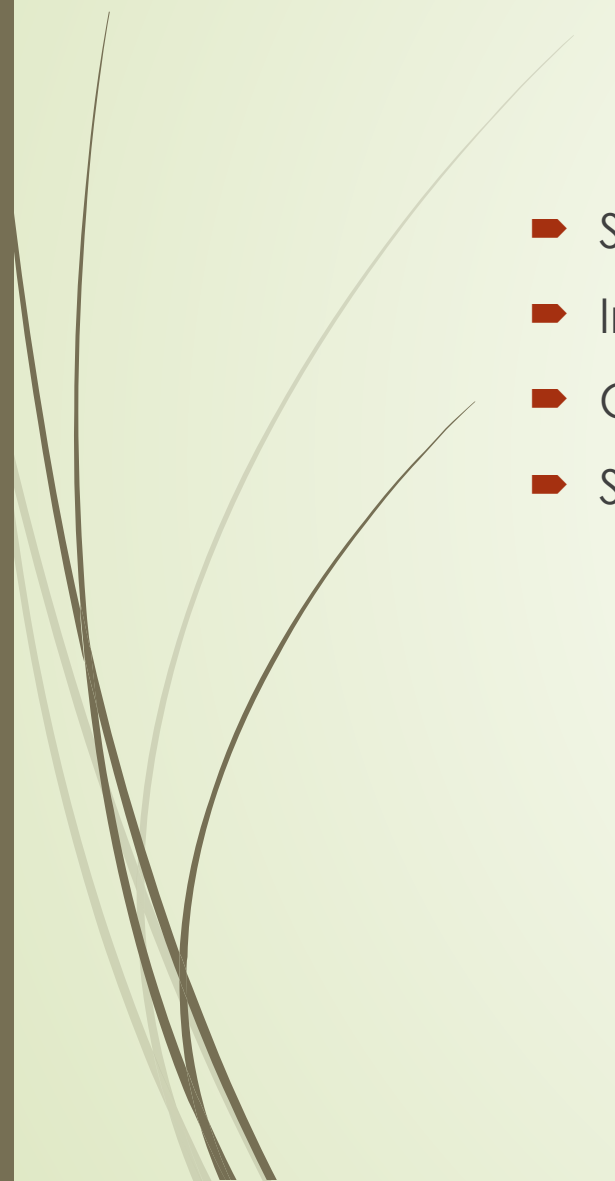
Document: Three Step Physics

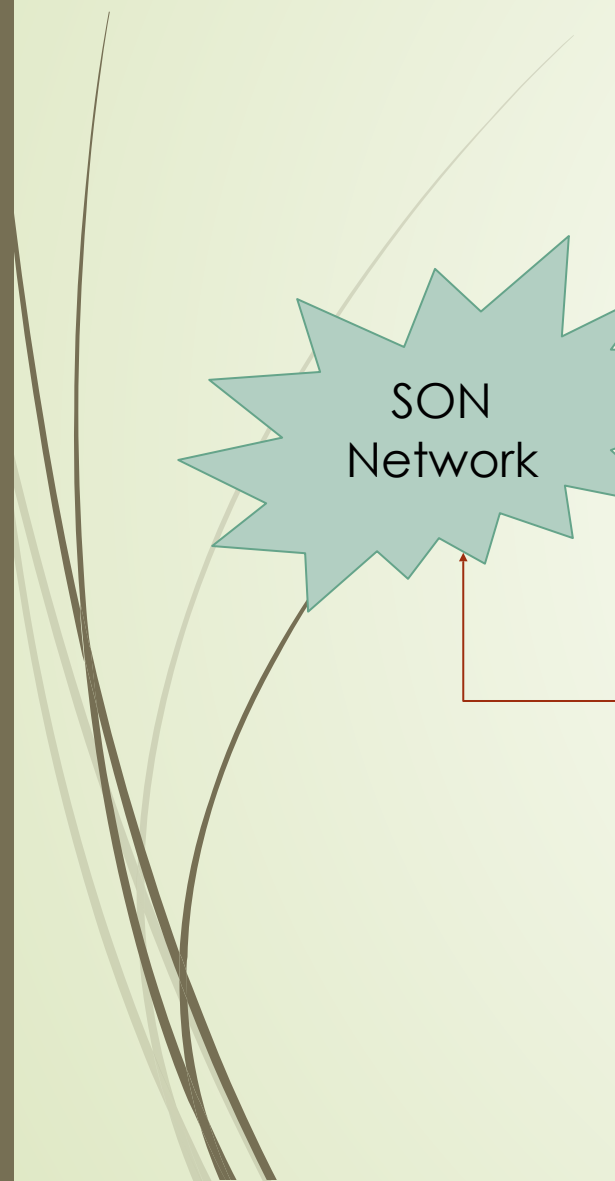
Document: Four Step Physics

Document: Five Step Physics




LMS Integration

- Search Plugin
 - Indexer
 - Common Database
 - SON Service
- 



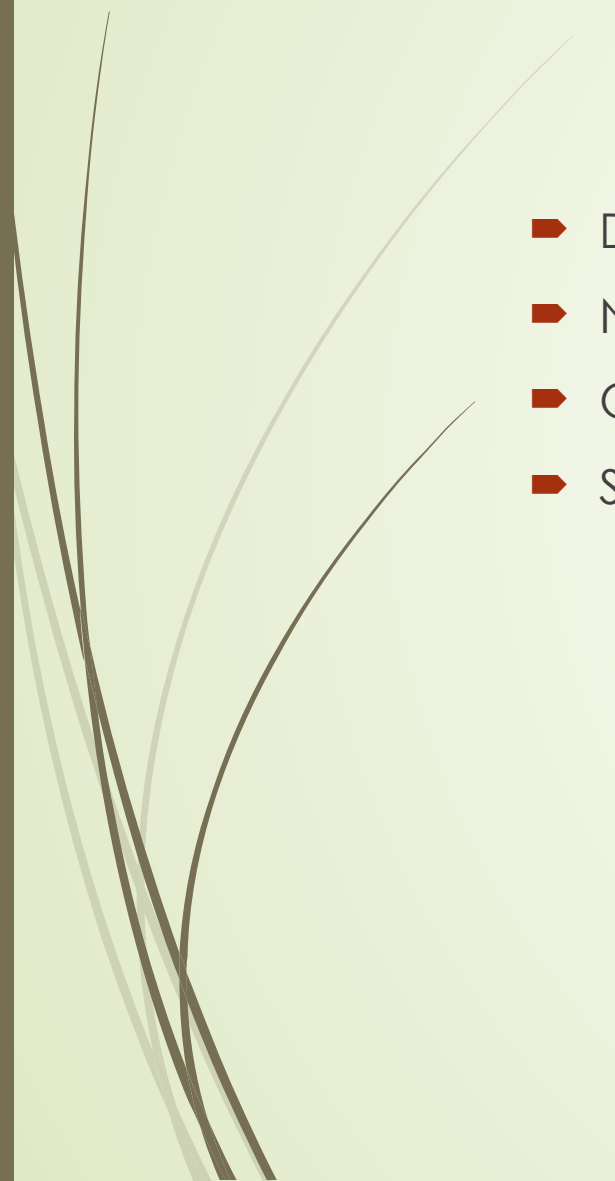


Document Indexing

- Tokenization
 - Case Folding
 - Stop List
 - Stemming (Porter Stemmer)
 - Plugins for pdf/doc
- 



Document Classification

- Document Classification
 - Node Classification
 - Query Classification
 - SVM
- 



SON Service

- Client/Server Architecture
 - Java/Python
 - Query Manager
 - Request Manager
 - Network Manager
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