



# Discovering Scientific Communities

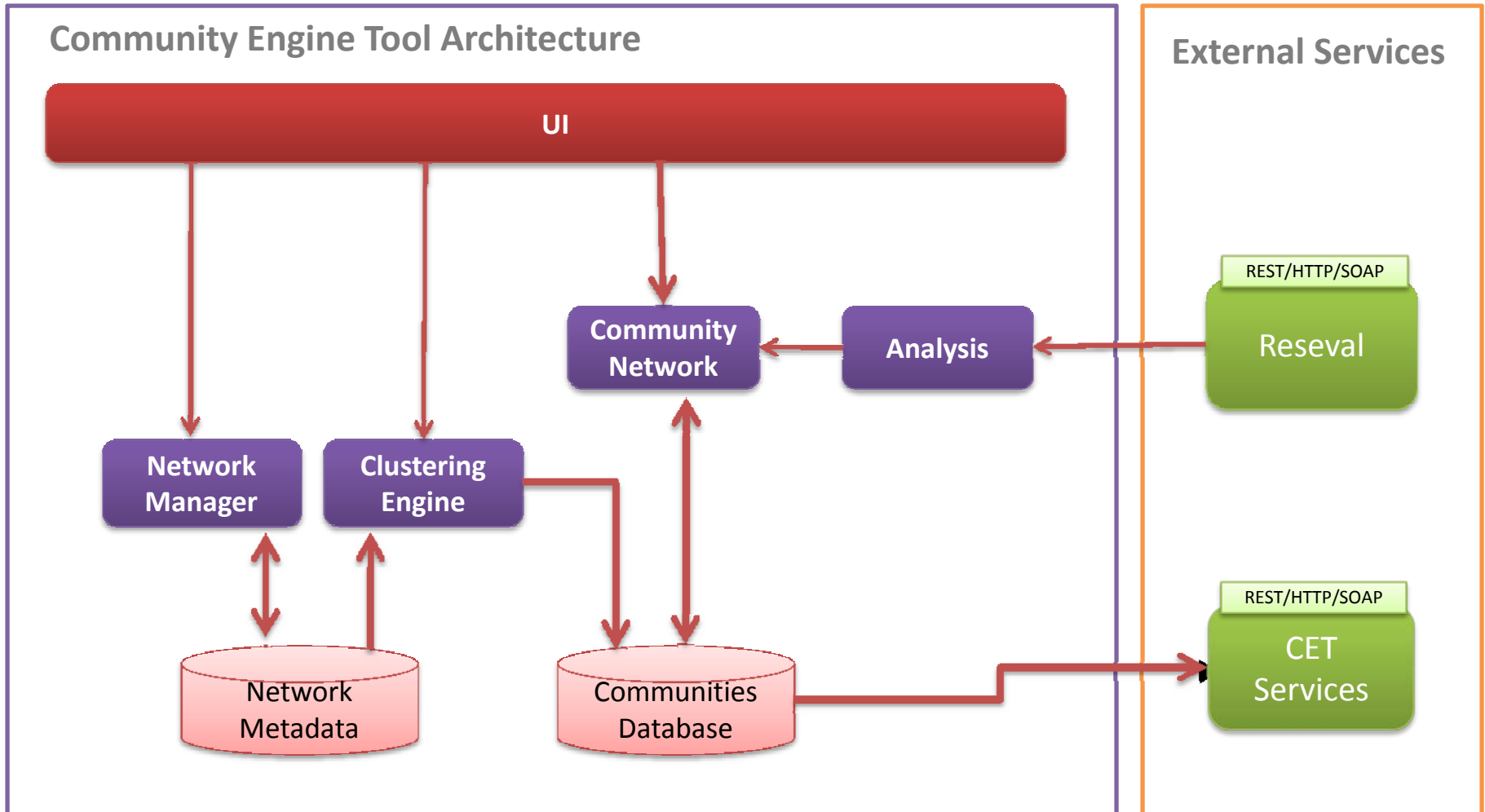
Detection of Community Structure  
using CET tool.

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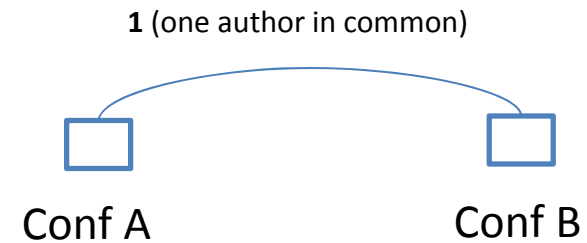
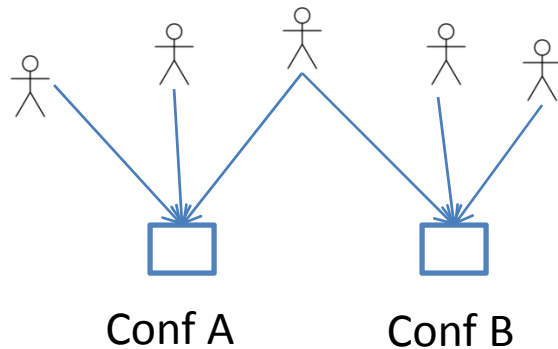
# Outline

- Architecture
- Description of the process
- Community Network
  - Members
  - Metrics
  - Inside the community
- References

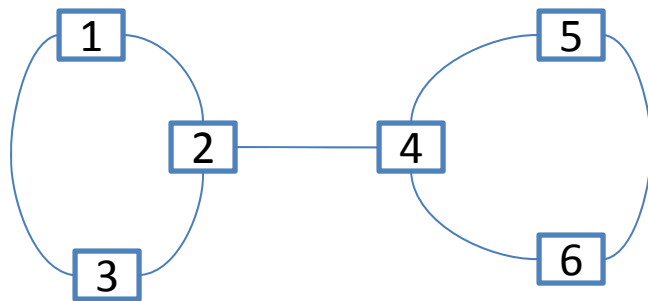
# Architecture



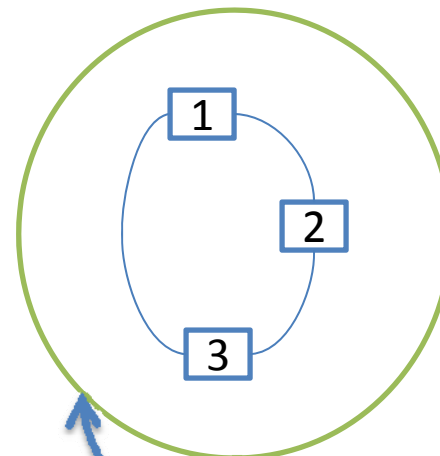
# Community Detection Process



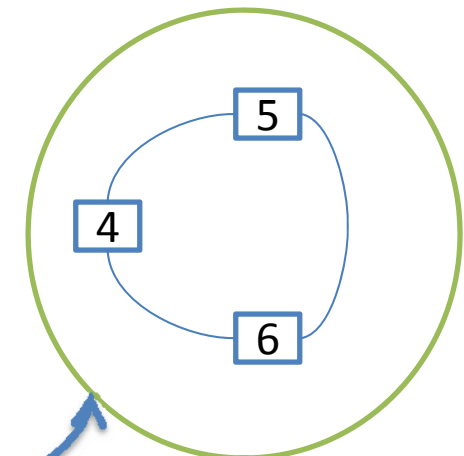
Conference Network



Community A



Community B



**Overlapping Between Communities**

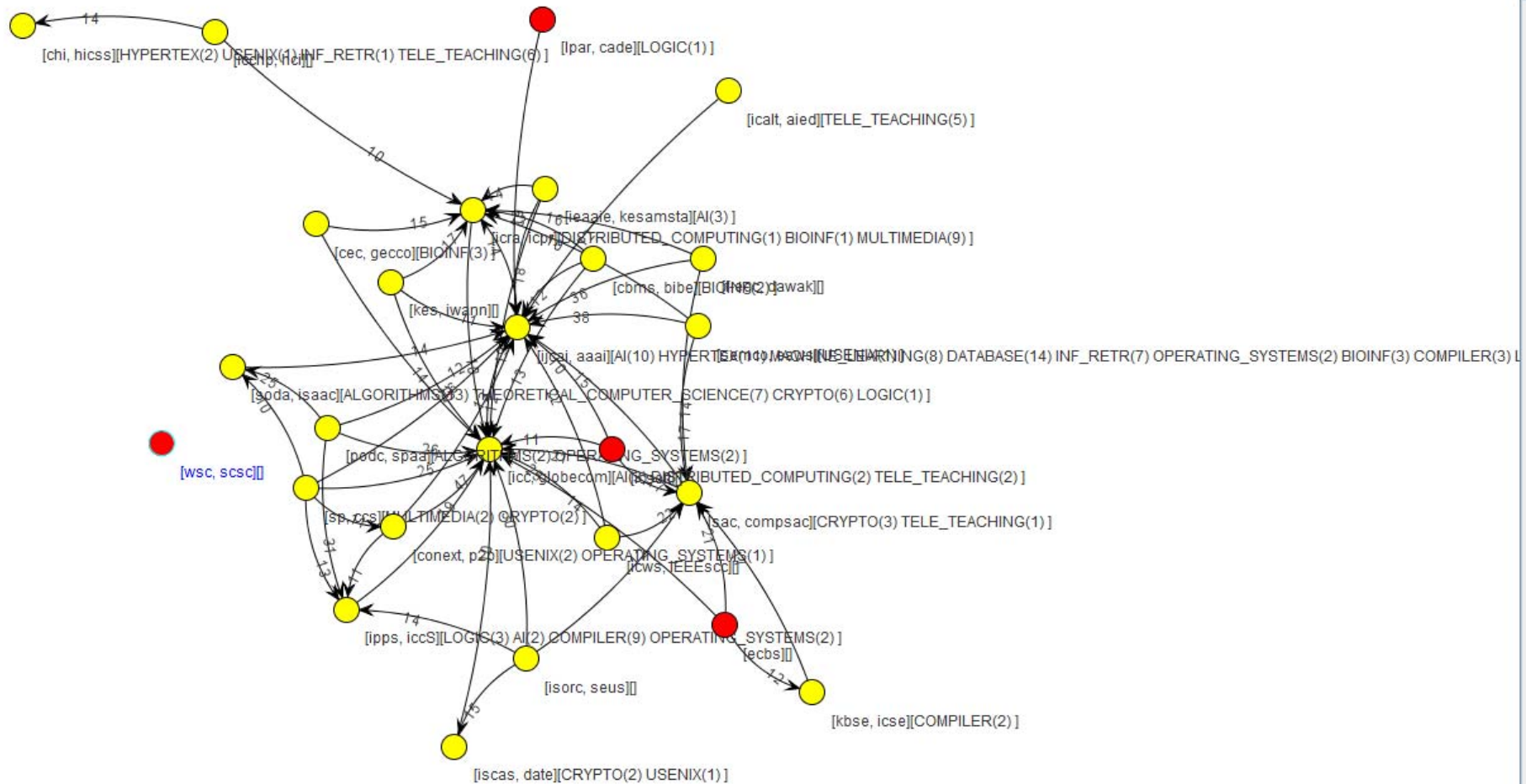
% of Common Authors



# Community Network

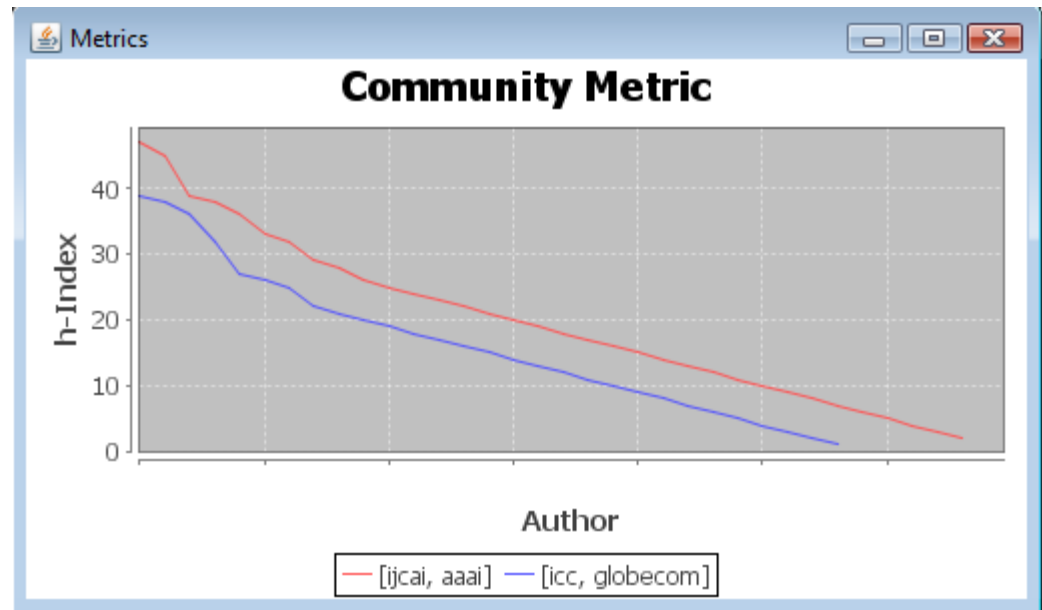
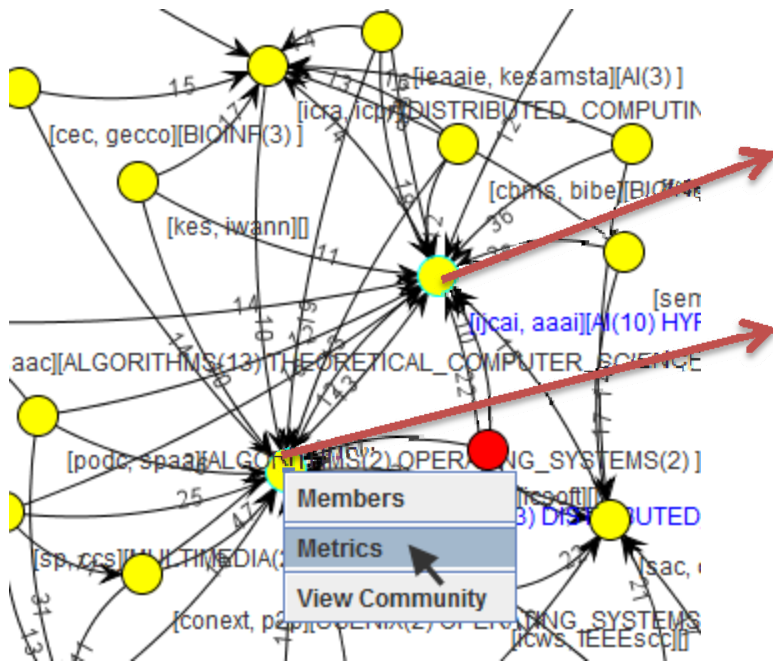
Community Engine - Liquid Pub Project

File Analysis

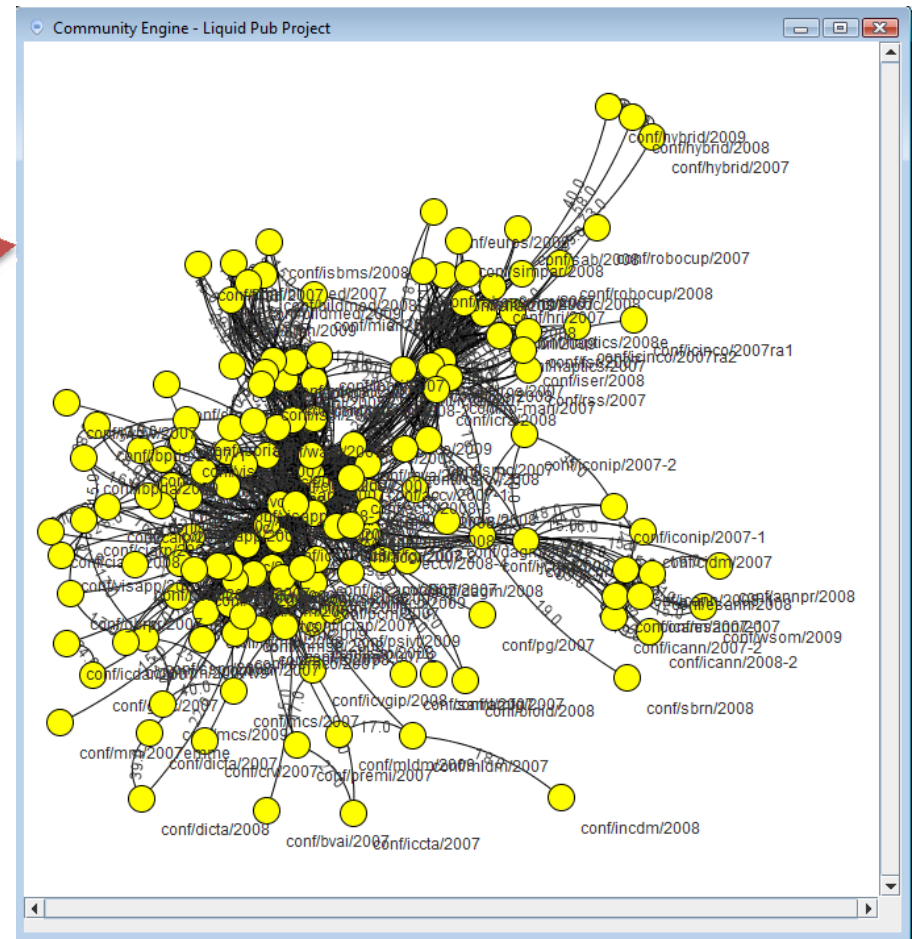
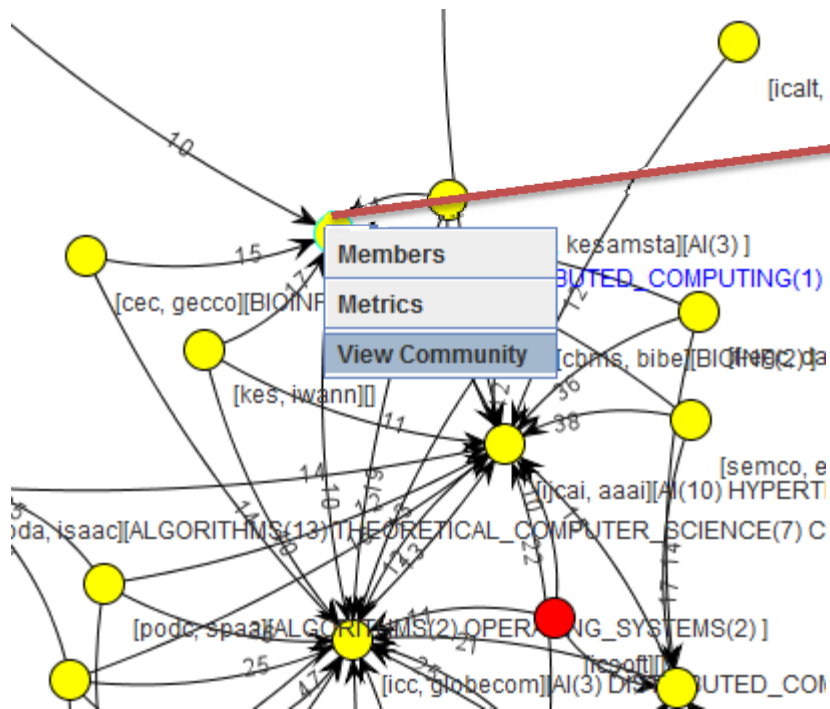




# Community Network - Metrics



# Inside the Community



# References

- Girvan, Michelle and Newman, M. E. J., Community structure in social and biological networks, 2001
- Newman, M. E. J., Analysis of weighted networks
- Wu, F. and Huberman, B. Finding communities in linear time: a physics approach, 2004
- Blondel, Vincent D. and Guillaume, Jean-Loup and Lambiotte, Renaud and Lefebvre, Etienne. Fast unfolding of communities in large networks. 2008
- <http://jung.sourceforge.net/index.html>