

Team Structure in Climate Change Research

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Project Description

- Explore team collaborations on a global research effort to understand climate change
- Overlay economic system constraints onto a citation network
- Compare different fields for varying levels of collaboration
- Examine of cross-country links

Data Sources

- Intergovernmental Panel on Climate Change (Third Assessment Report)
 - Synthesis process that collects important papers from around the world
- Three chapters from different fields:
 - Insurance impacts (C=212)
 - Atmospheric Chem. (C=287)
 - Policy Instruments (C=333)

Steps to Date

- Extract, clean, and format IPCC data
- Excel to Matlab – Not recommended
- Excel to UCINET - Great
- Literature Search
- SQL Query Queries – Thomson

Data manipulation slide

Paper1_1986,AIRAC

Paper2_2000,C.Aldred

Paper3_2000,D.R.Anderson

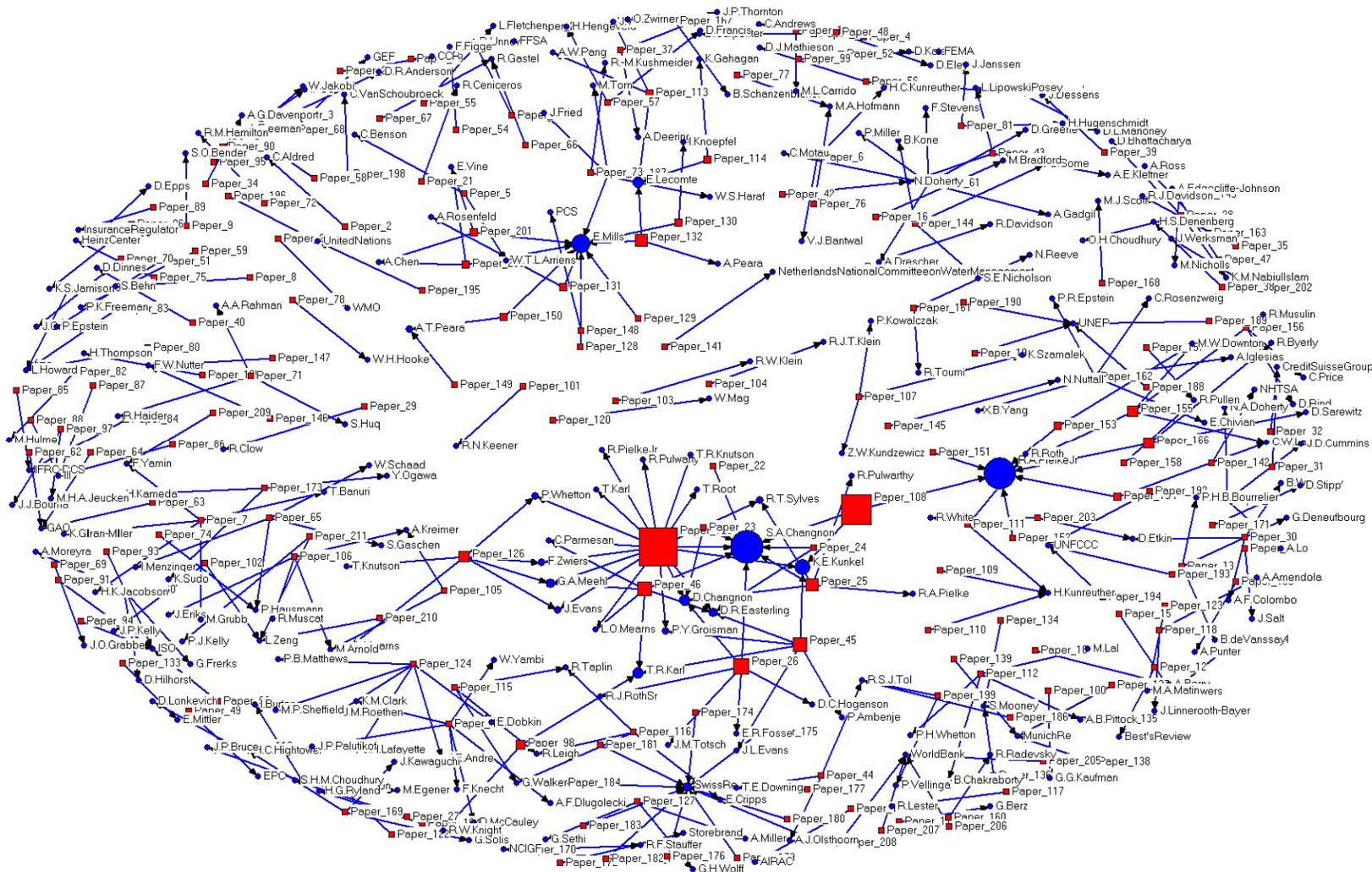
Paper4_2000,C.Andrews

Paper5_1999,W.T.L.Arriens,C.Benson

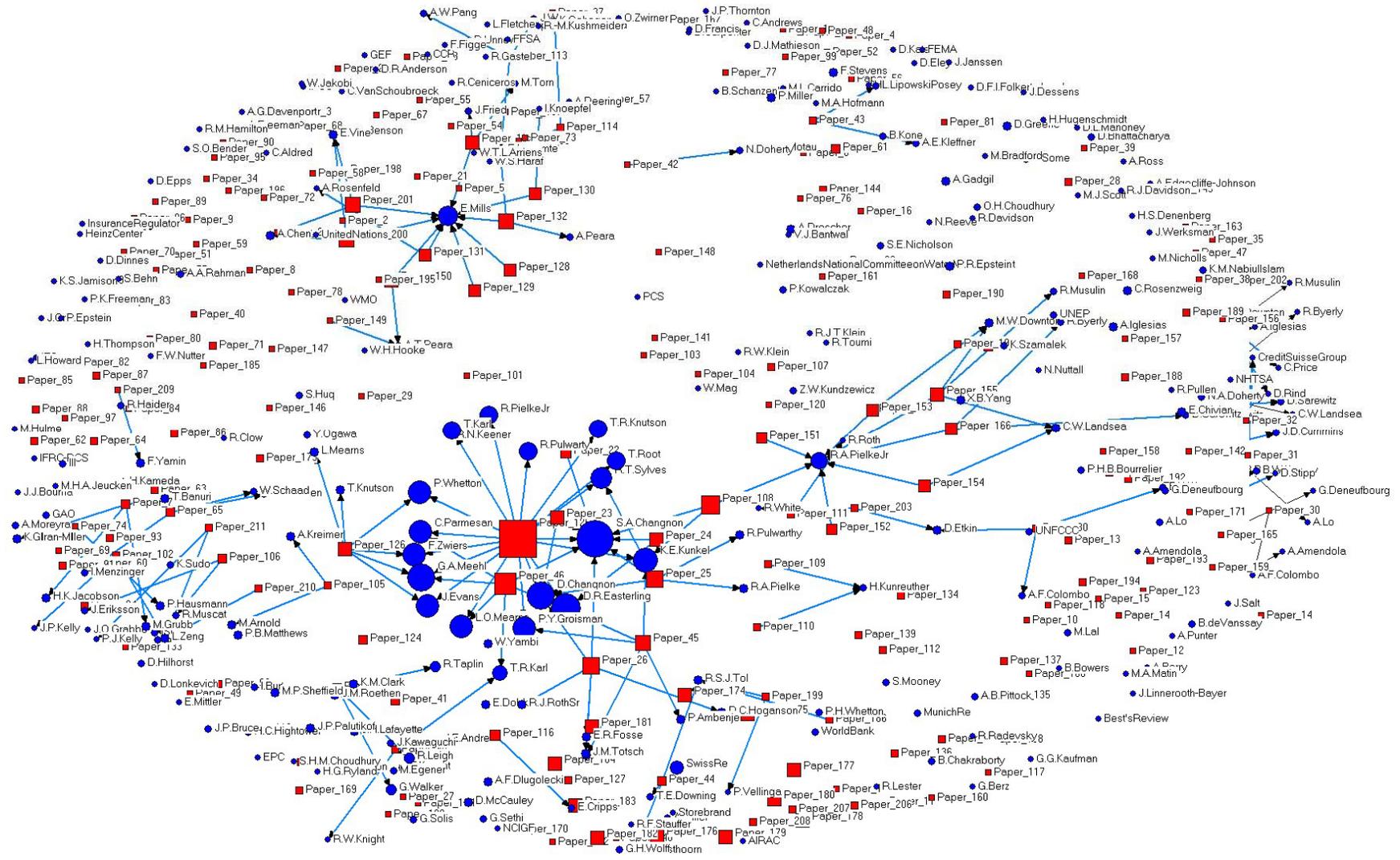
Paper6_2000,V.J.Bantwal,H.C.Kunreuther

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Network Diagram



Network Diagram



Future Work

- Calculate Basic Network Parameters (clustering coeff., path length, centrality, etc.)
 - Team Economics (Incentives)
 - Team Definition (co-authors, citations, funding?)
 - Evolution by Date (identify “seed” papers)
 - Geographic Distribution
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- Suggest Optimal Structure
 - Translate Team Structure Concepts to Network Representation