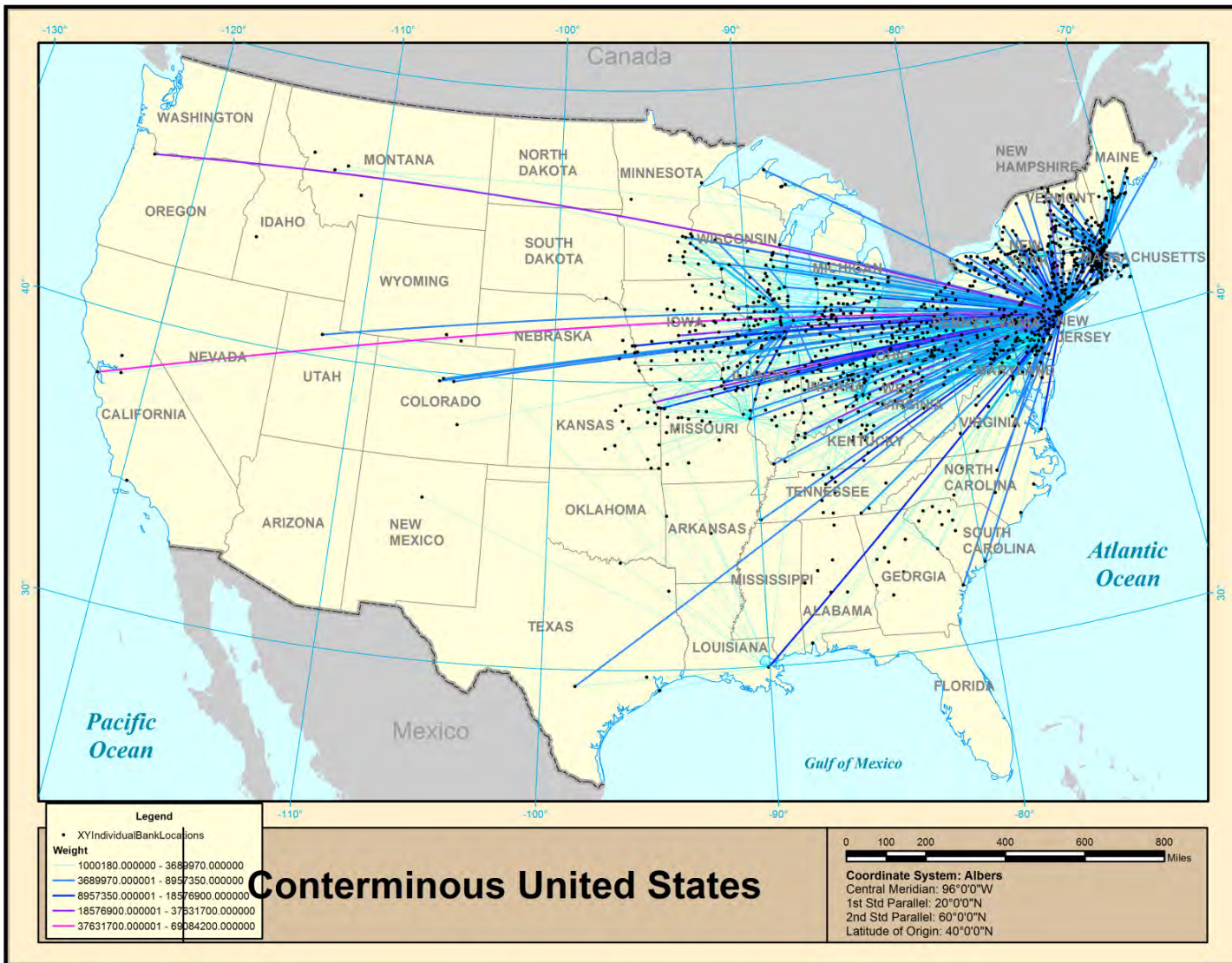




Financial Risk and Network Theory

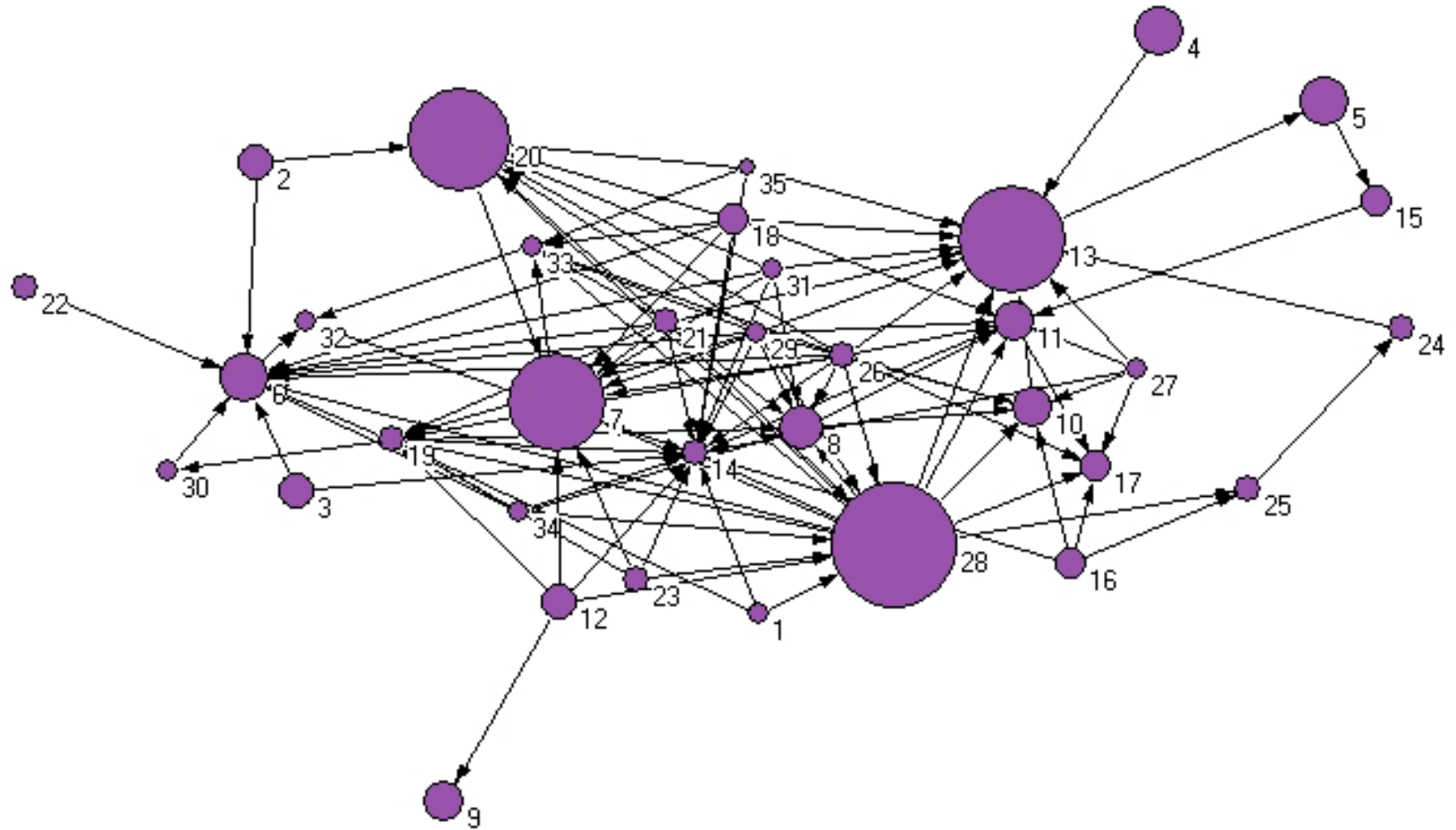
Seminar 9 September 2015

Candidates for
Cambridge Prize for Financial Network Visualisation



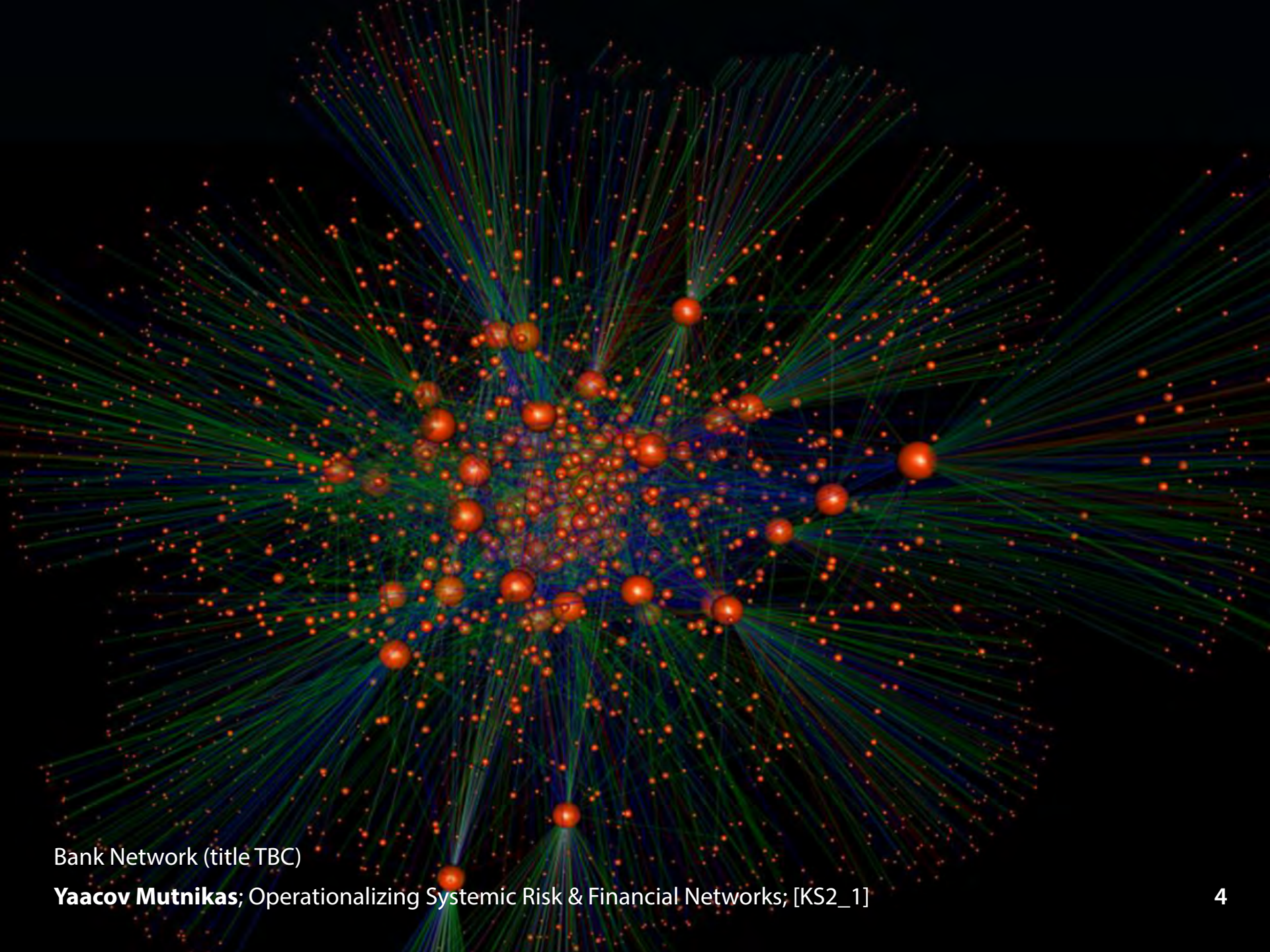
US Banking Network during 1873 Financial Crisis

Daniel Ladley; A Network Analysis of the 1873 Financial Crisis [S3_2]



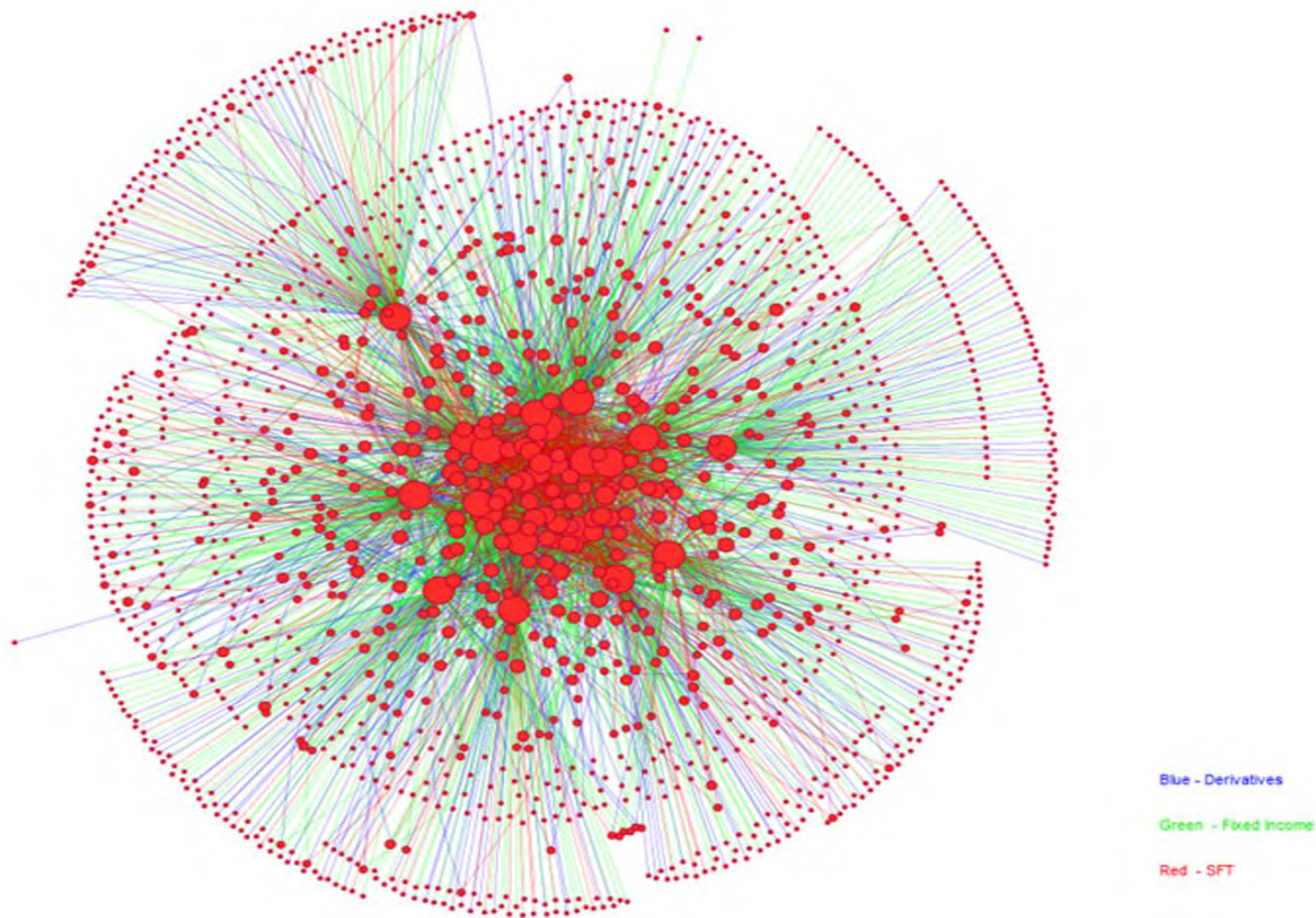
Inter-Bank Markets as a Network

Piotr Z. Jelonek; Inter-bank Network Formation - From Heterogeneity to Systemic Risk; [PP S1_2]



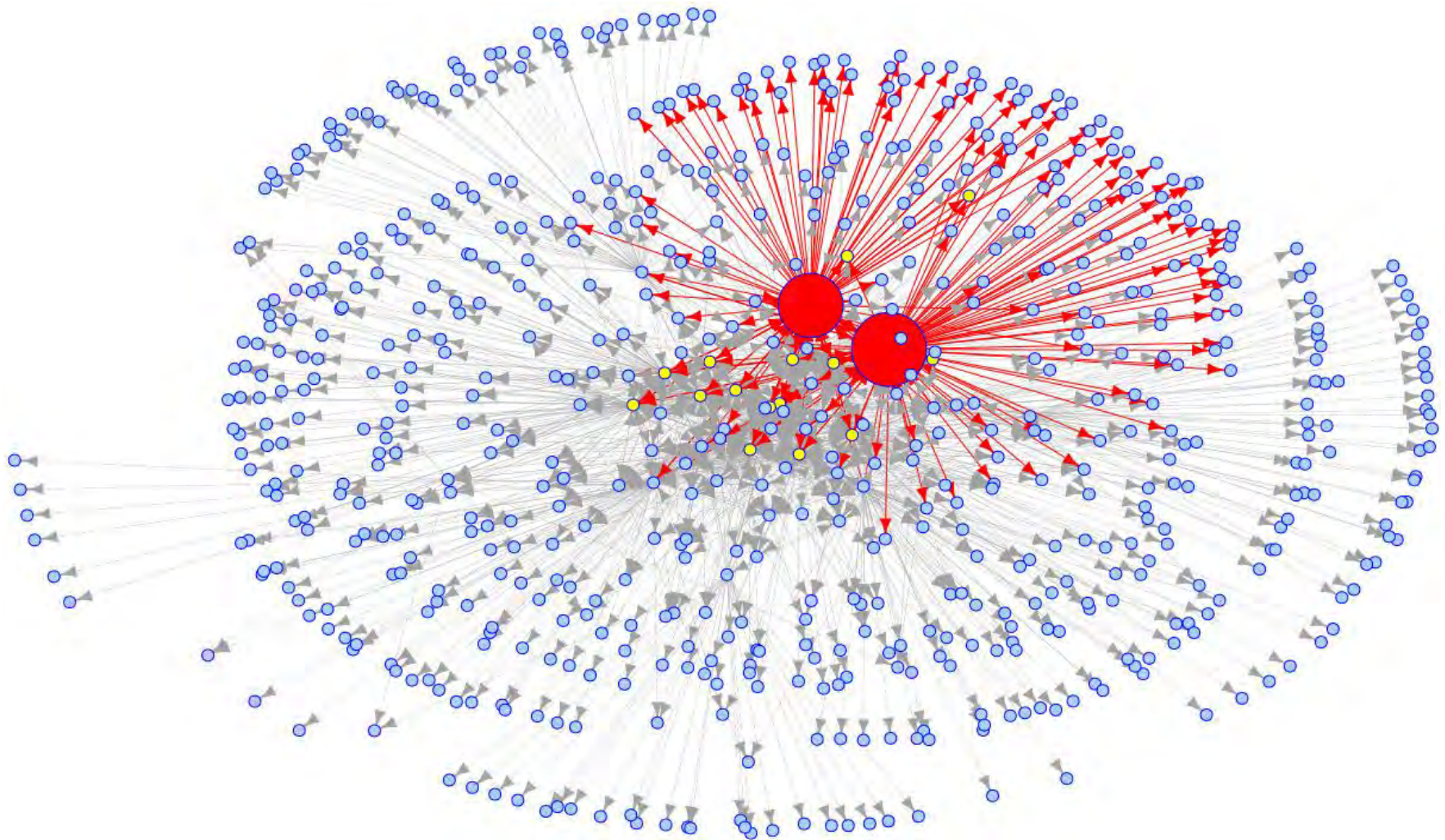
Bank Network (title TBC)

Yaacov Mutnikas; Operationalizing Systemic Risk & Financial Networks; [KS2_1]



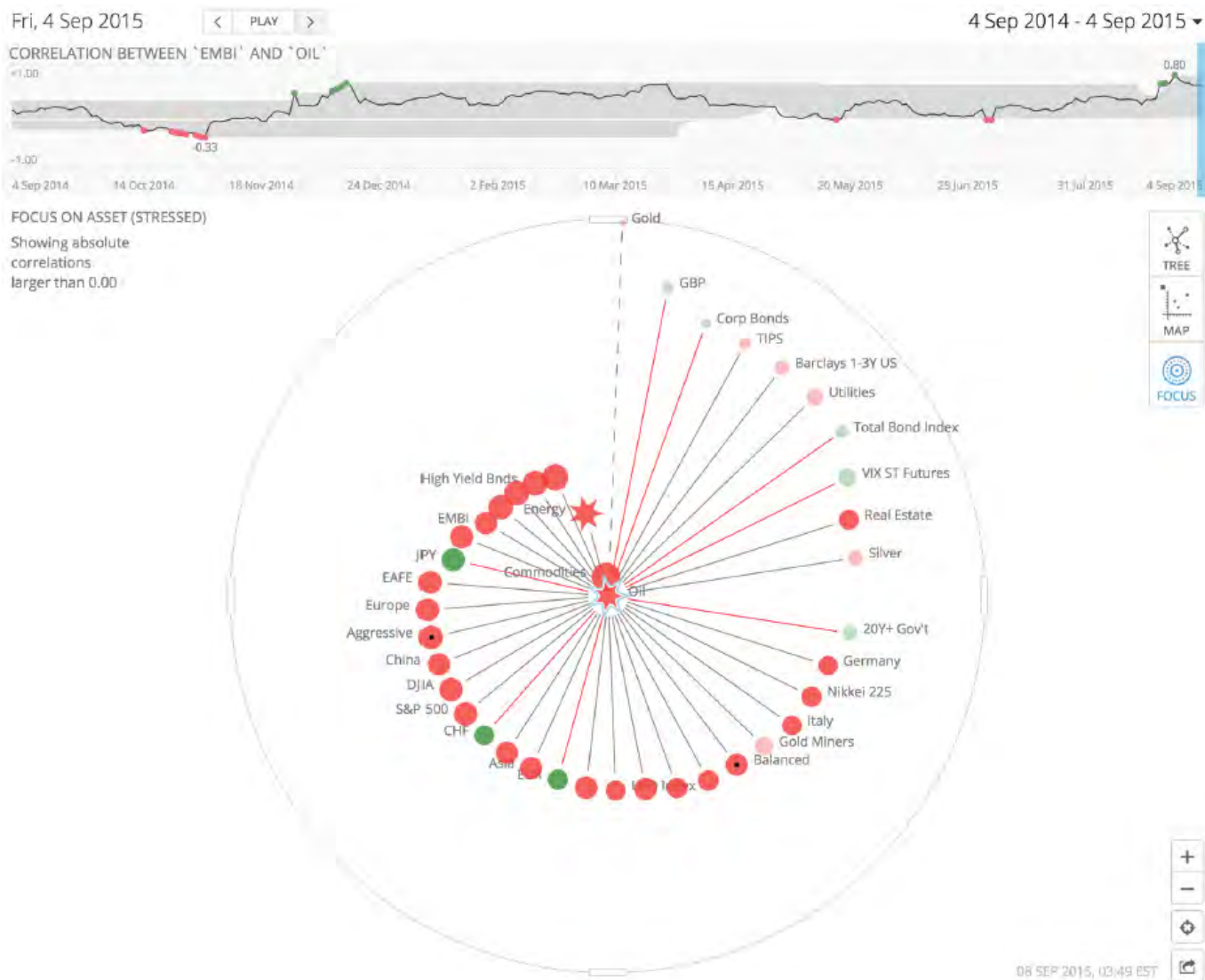
Correlation of Asset Classes in Institutions

Yaacov Mutnikas; Operationalizing Systemic Risk & Financial Networks; [KS2_1]



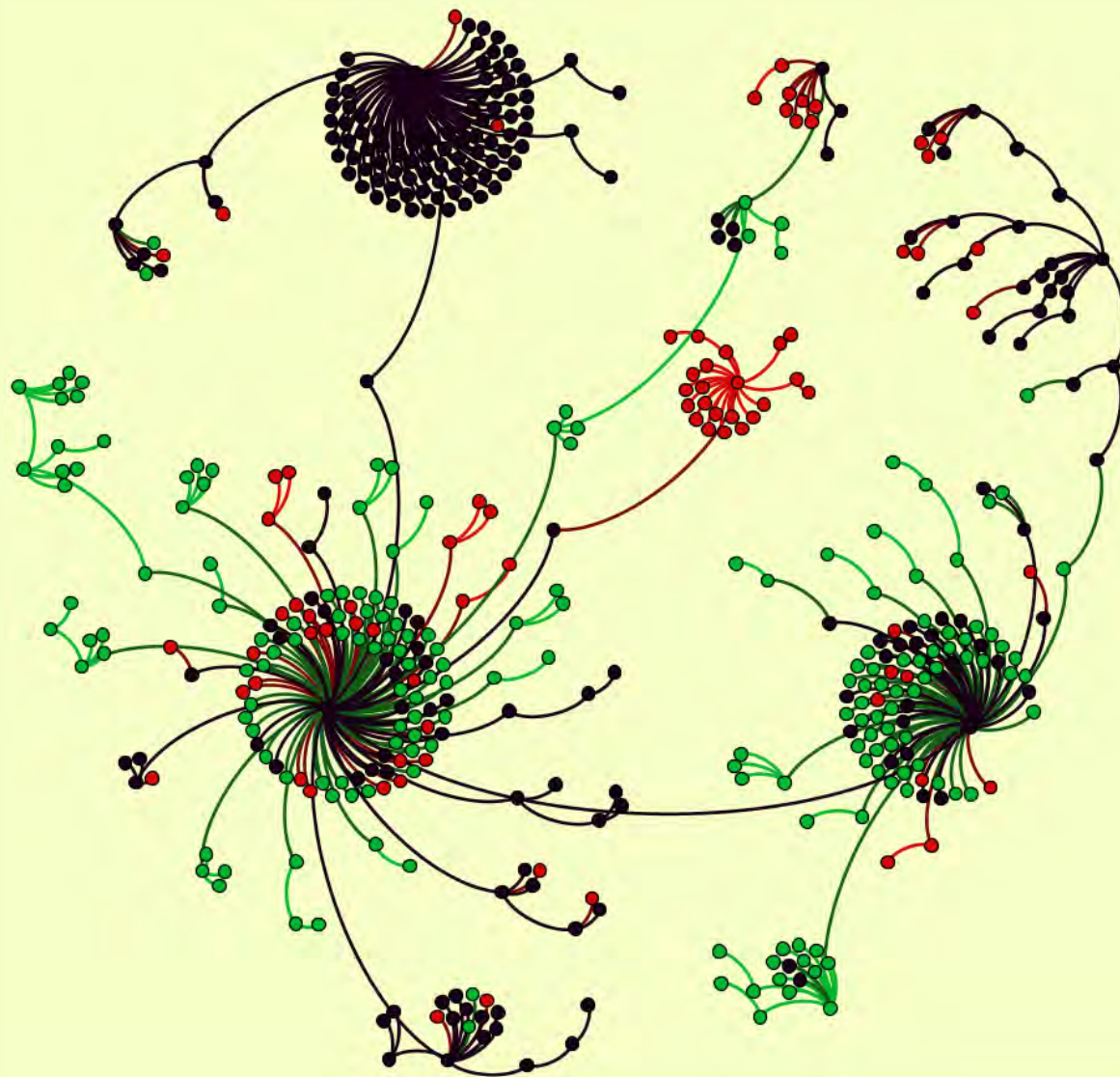
Correlation of a Specific Asset Class Held by Institutions

Kimmo Soramäki; Applications of Network Theory in Finance; [KS1_1]



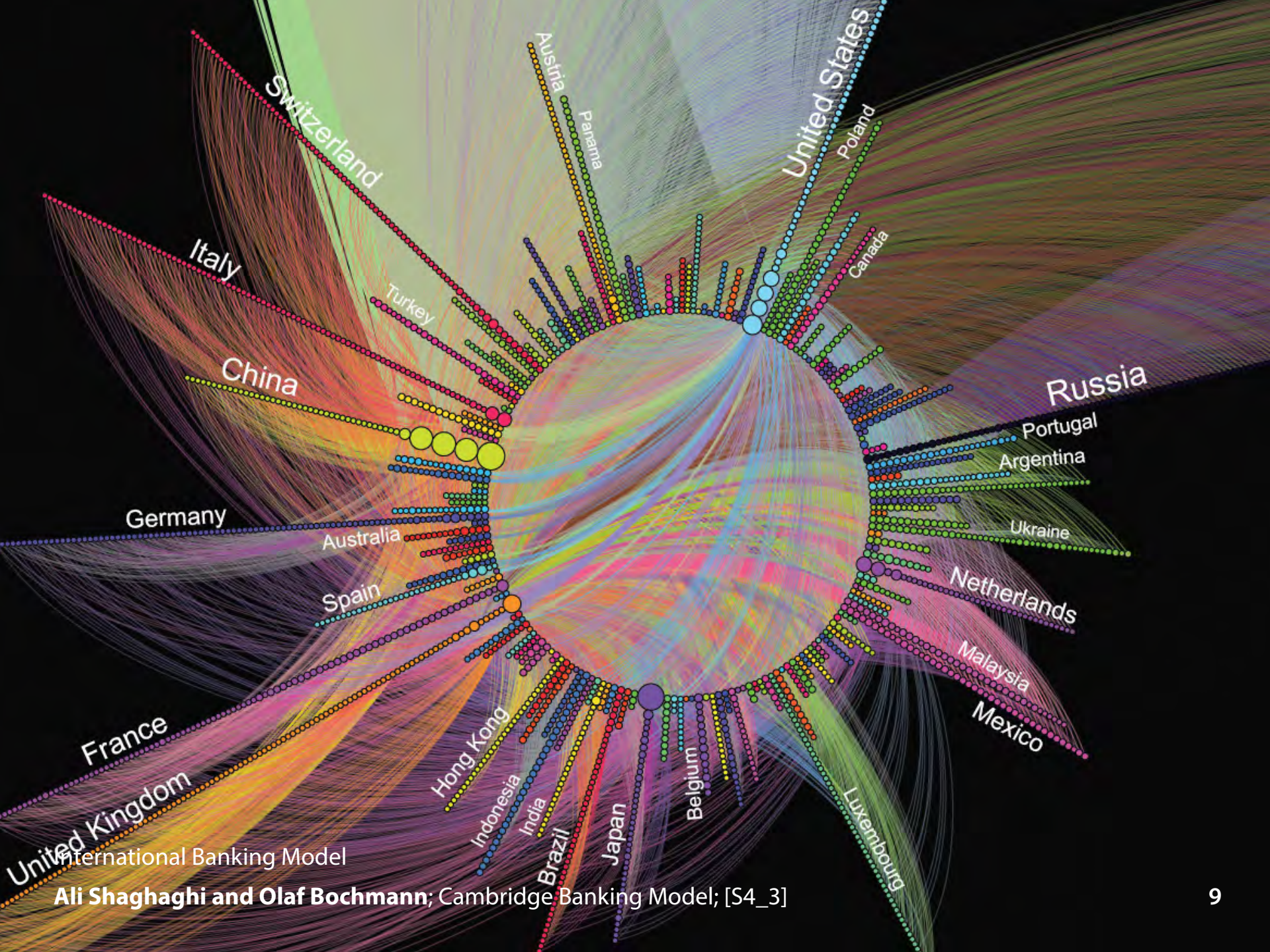
Investment Asset Correlation: Stress Testing Oil Shock

Kimmo Soramäki; Applications of Network Theory in Finance; [KS1_1]



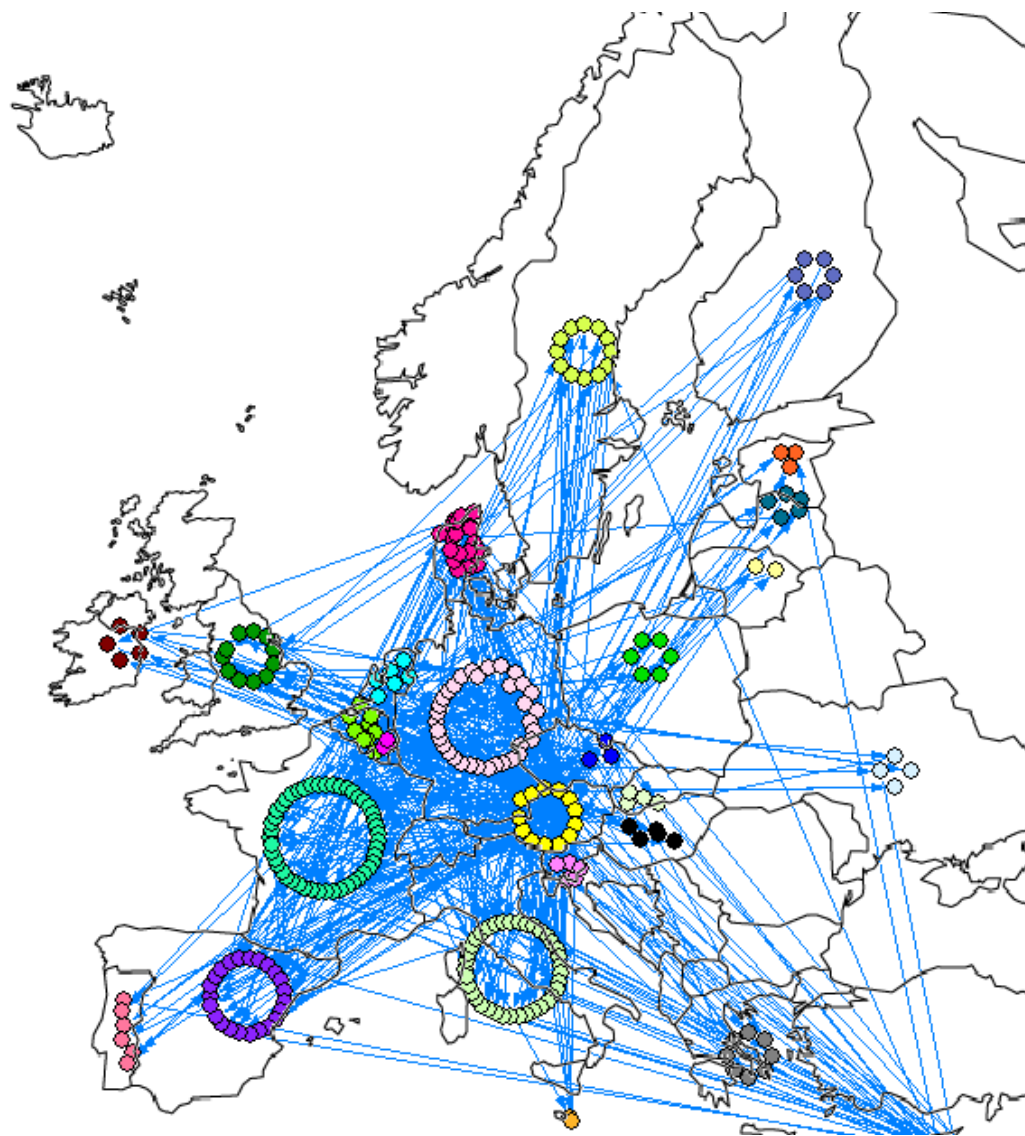
Holding Company Hierarchies: Example Bank (Wells Fargo)

Mark Flood; On Counterparty Networks; [KS1_3]



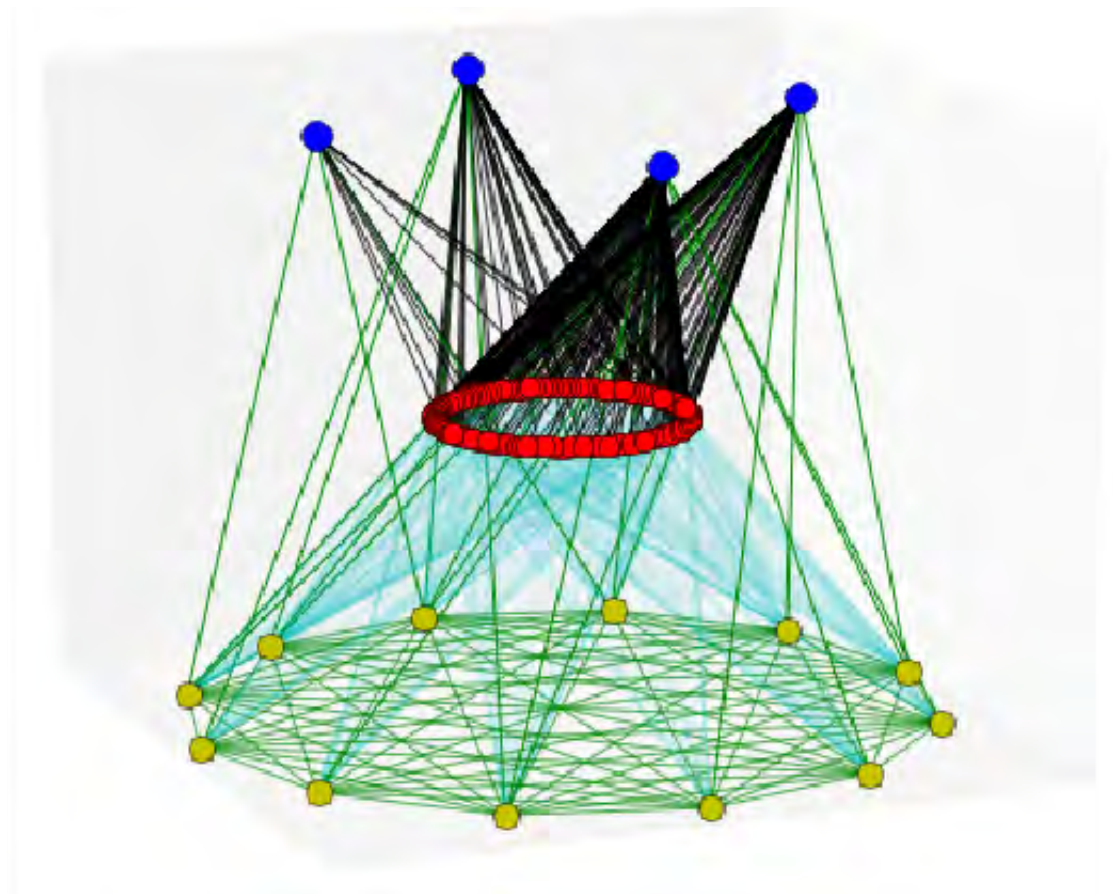
International Banking Model

Ali Shaghaghi and Olaf Bochmann; Cambridge Banking Model; [S4_3]



European Interbank Exposures

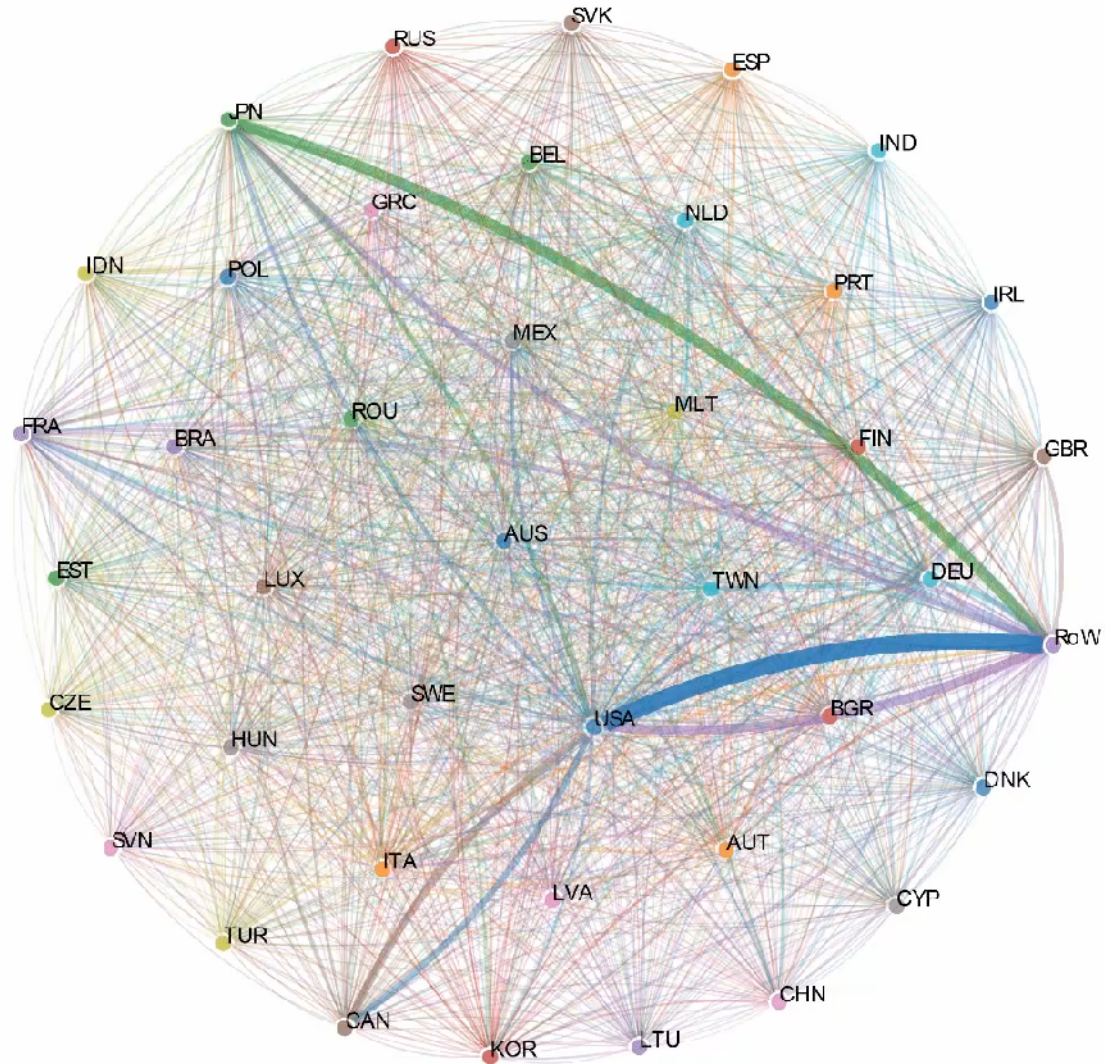
Michaela Rancan; Cross border losses in the European banking sector [S1_2]



Impact of Settlement Banks on Network Fragility

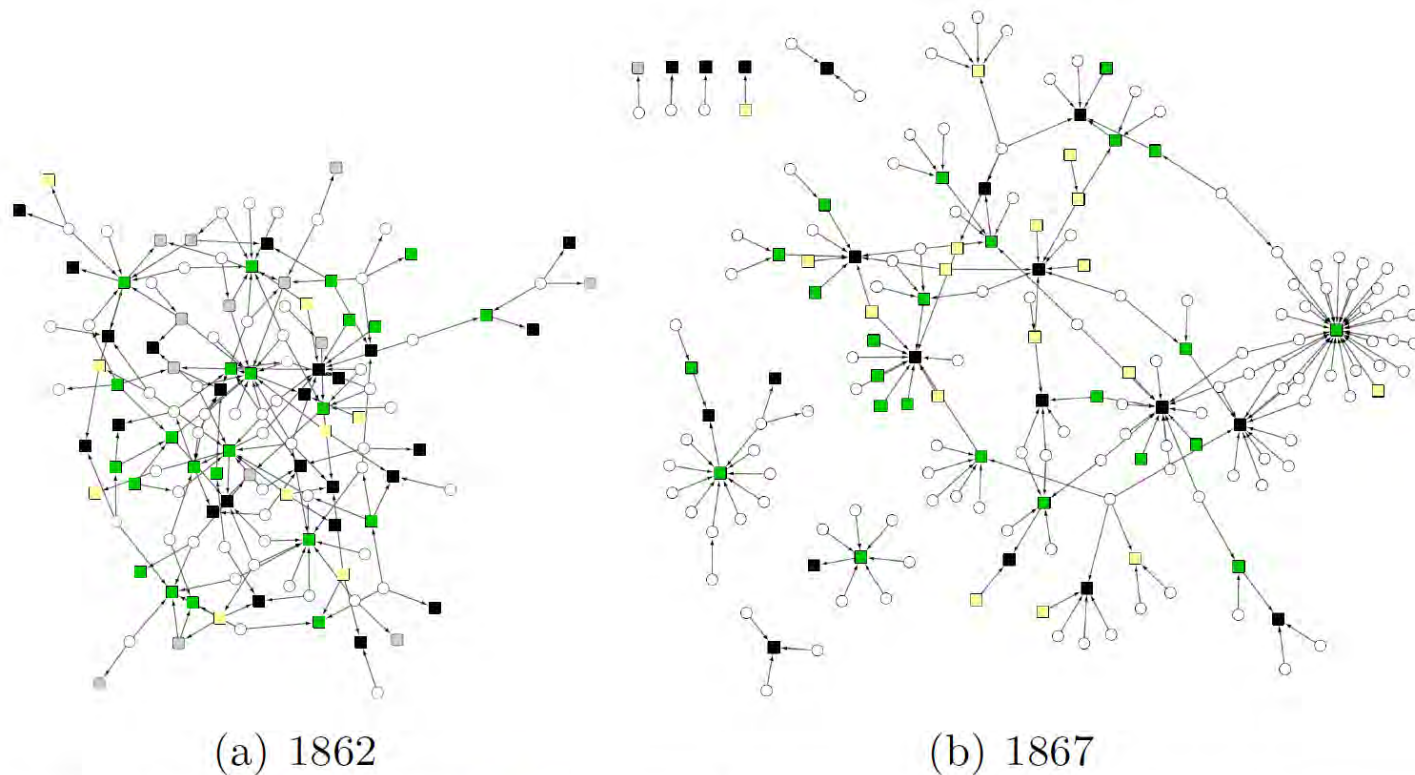
Ivana Ruffini; All-or-nothing payments and financial network fragility [S2_1]

1995



2011 Economic Multi-Regional Input-Output Flows - Time Series Animation

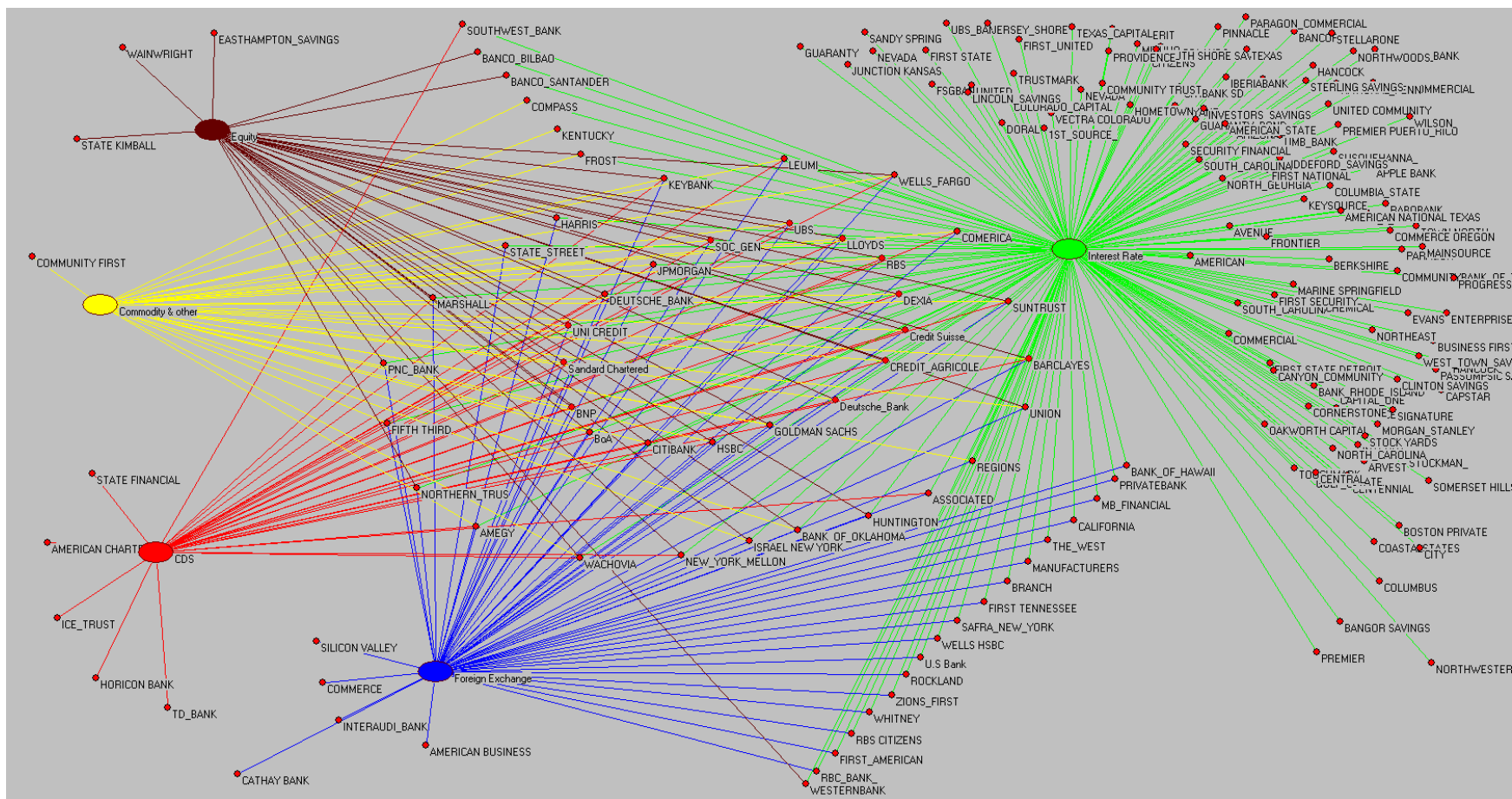
Paweł Fiedor; Structural Sustainability of the Global Supply System; [S2_3]



—NYC
 —PHI
 —PIT
 —local hubs
 —country banks

Empirical Correspondent Networks of US Banks 1862 and 1867

Mark Paddrik; Bank Networks and Systemic Risk: Micro-evidence before and after the National Banking Acts of 1863-1864; [S3_1]



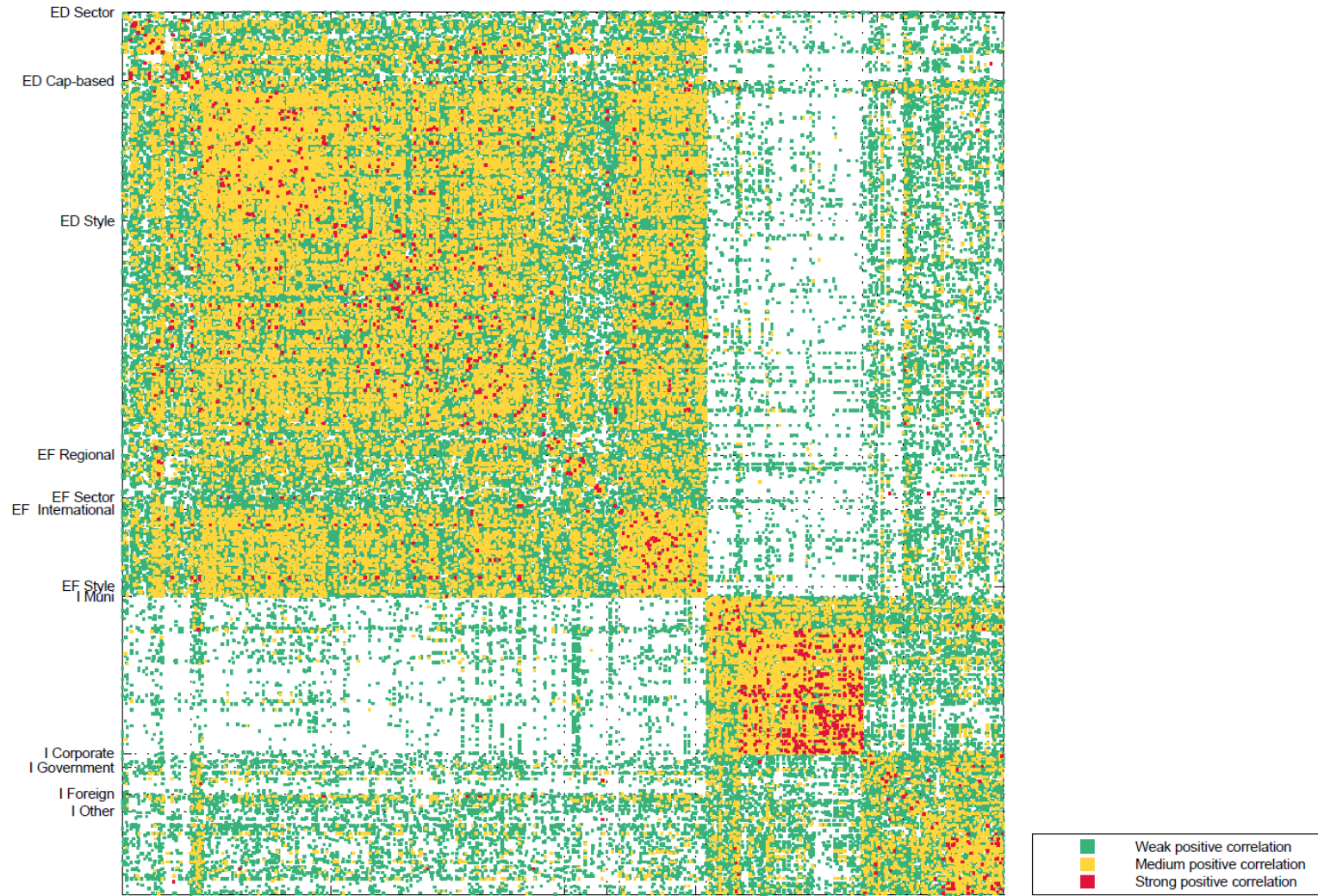
Structure of Global Financial Derivatives Market

Ali Rais Shaghaghi; CCPs and Network Stability in OTC Derivatives Markets; [S3_3]

Initial Network



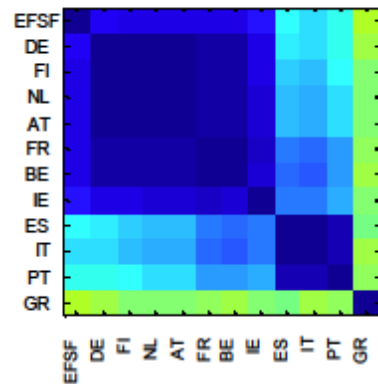
Correlation network (positive correlations) CRSP Mutual Funds



Mutual Funds Correlation Network

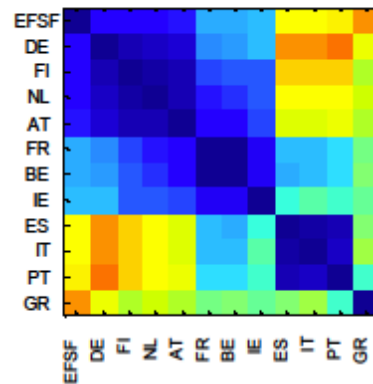
Martín Saldías; Correlation Networks and Spatial Dependence: Theory and Applications; [S5_1]

08-Jun-2015 08:00:00 -12-Jun-2015 17:00:00



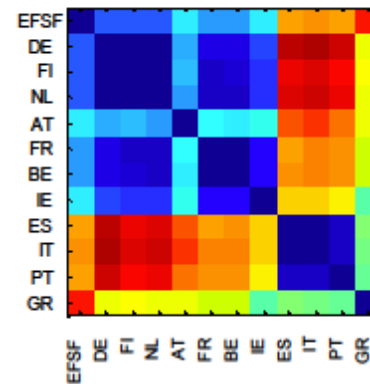
Ongoing negotiations

15-Jun-2015 07:00:00 -19-Jun-2015 17:00:00



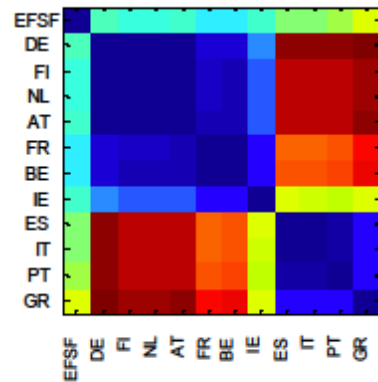
Tsipras meets Putin

22-Jun-2015 08:00:00 -26-Jun-2015 17:00:00



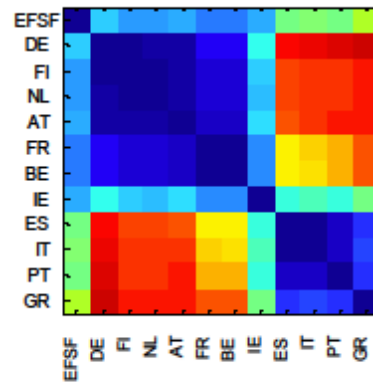
Many Eurogroup meetings without results

29-Jun-2015 08:00:00 -03-Jul-2015 17:00:00



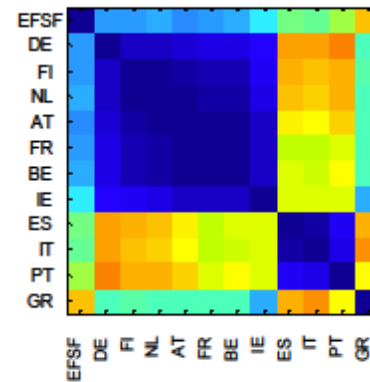
Capital controls after referendum was announced

06-Jul-2015 08:00:00 -10-Jul-2015 17:00:00

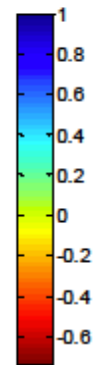


Referendum against bailout, ECB does not raise ELA limit

13-Jul-2015 07:00:00 -17-Jul-2015 17:00:00



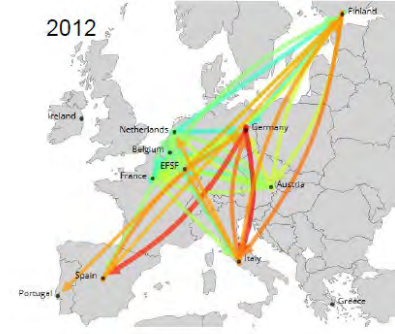
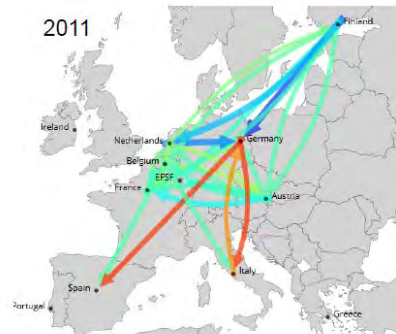
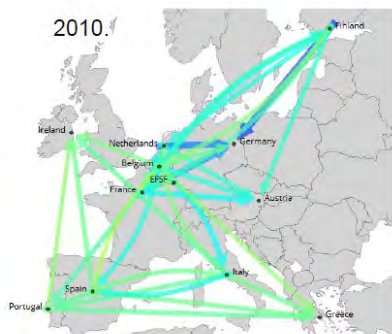
Greece commits to third bailout



Correlations in weekly intervals, using hourly yields

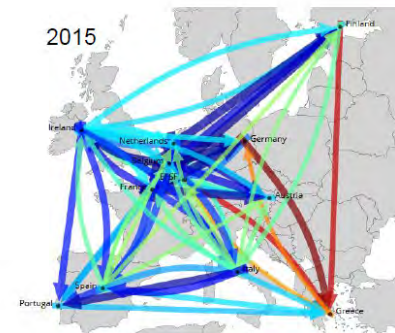
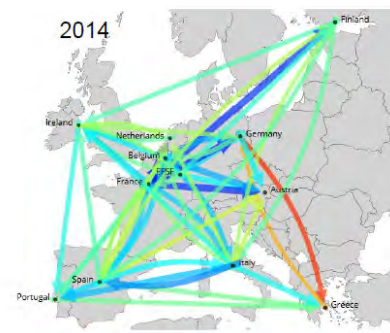
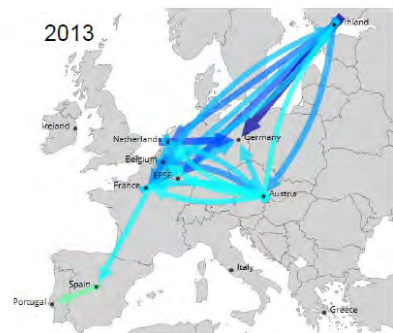
Eurozone Bond Correlations During Grexit Crisis 2015

Peter Schwendner; European Government Bond Dynamics and Stability Policies: Taming Contagion Risks; [S5_2]



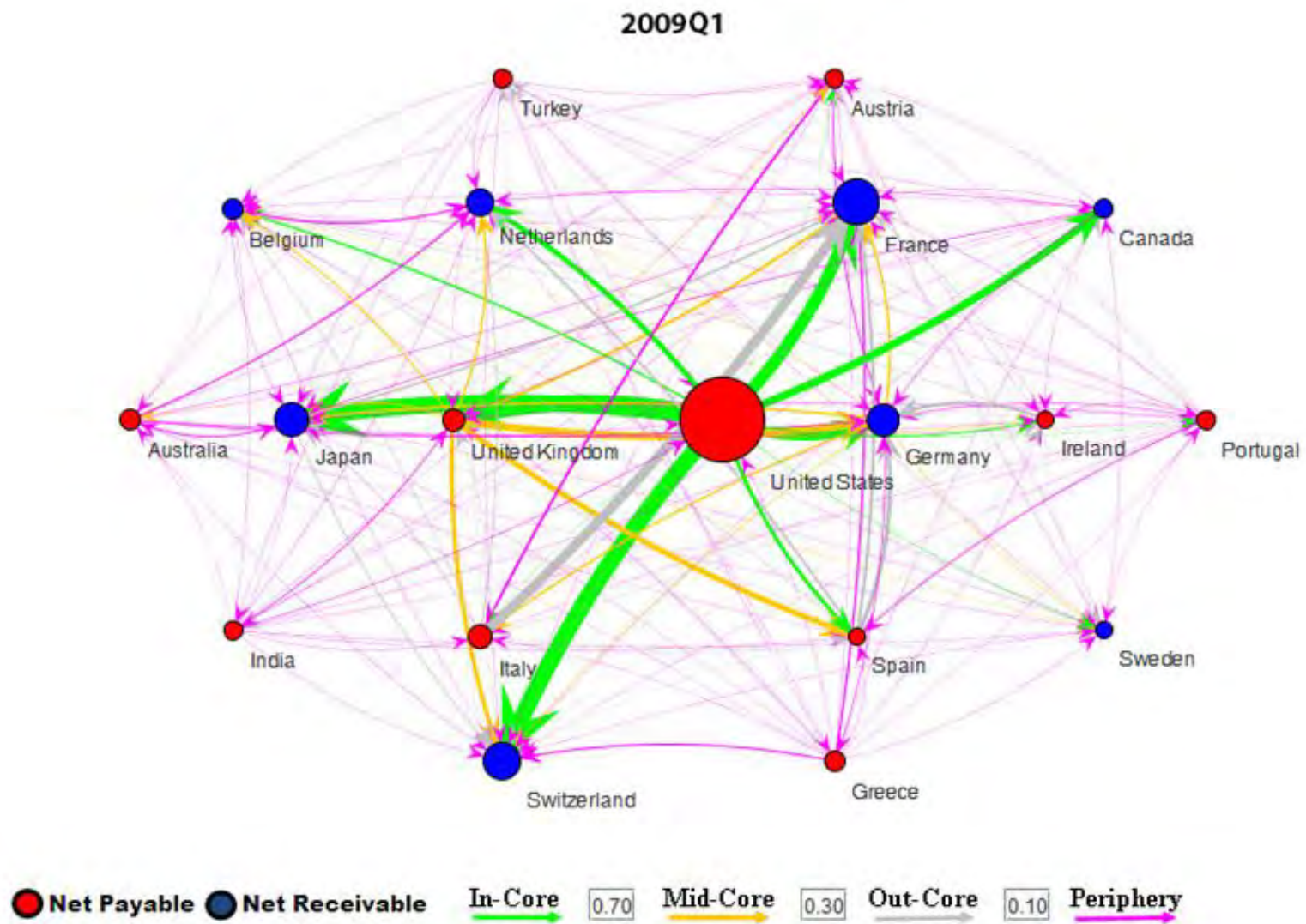
Blue arrows: dominating
positive correlations =>
reinforcing movements

Red arrows: dominating
negative correlations =>
diverging movements



Eurozone Bond Correlations 2010 - 2015

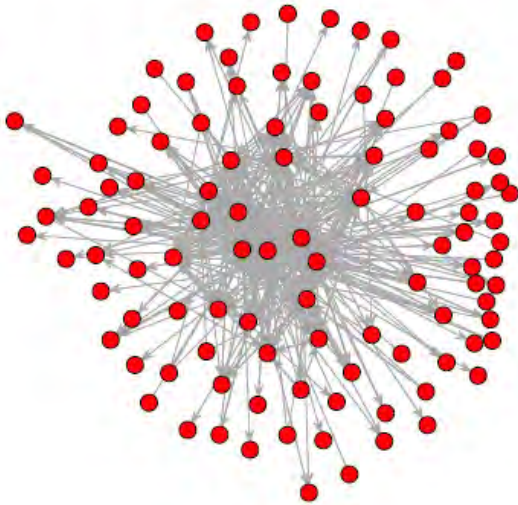
Peter Schwendner; European Government Bond Dynamics and Stability Policies: Taming Contagion Risks;
[S5_2]



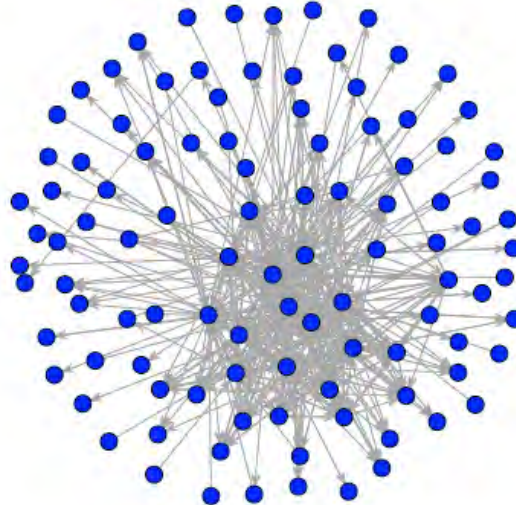
Core Global Banking System Network 2009Q1

Mateusz Gątkowski; Network Analysis of Systemic Risk, Core Global Banking System and of Eurozone Crisis: Early Warning Signals; [S6_2]

reference entity 1



reference entity 2



reference entity 3

