

Color figures

This document contains the color illustrations used in “*Exploratory Social Network Analysis with Pajek, Revised and Expanded Edition for Updated Software*”. *Third Edition*. Published by Cambridge University Press, 2018. The colors of vertices in sociograms correspond to their colors in Pajek’s Draw screen if default partition colors are selected in the *Options>Colors>Partition Colors>for Vertices* submenu of the Draw screen. Note that most illustrations were derived from PostScript output from Pajek, which is slightly different from what you actually see in the program’s Draw screen.

1 Looking for social structure

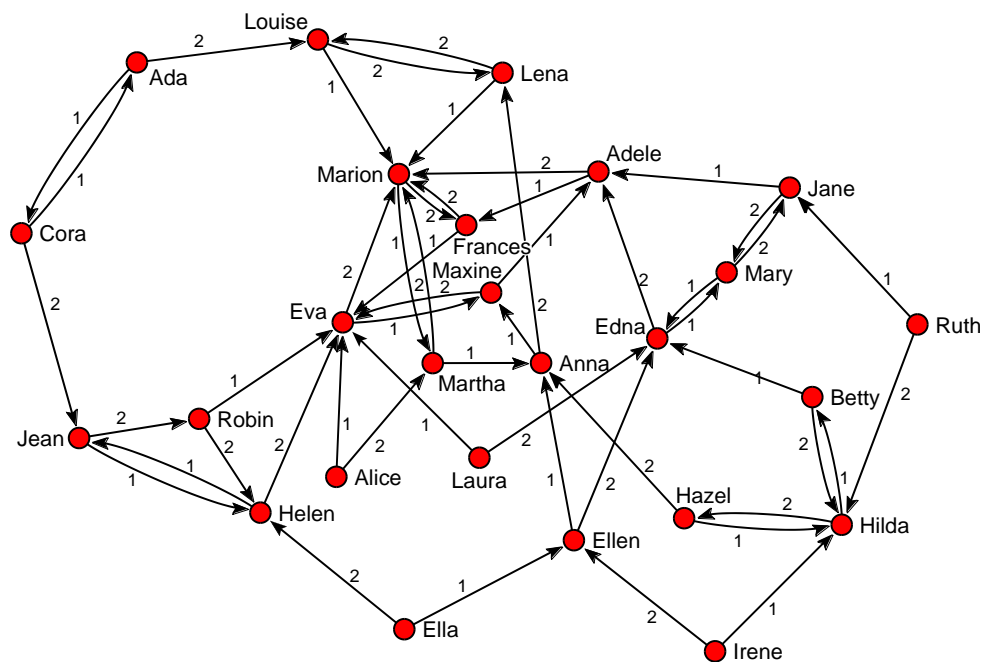


Figure 2 - Sociogram of dining-table partners.

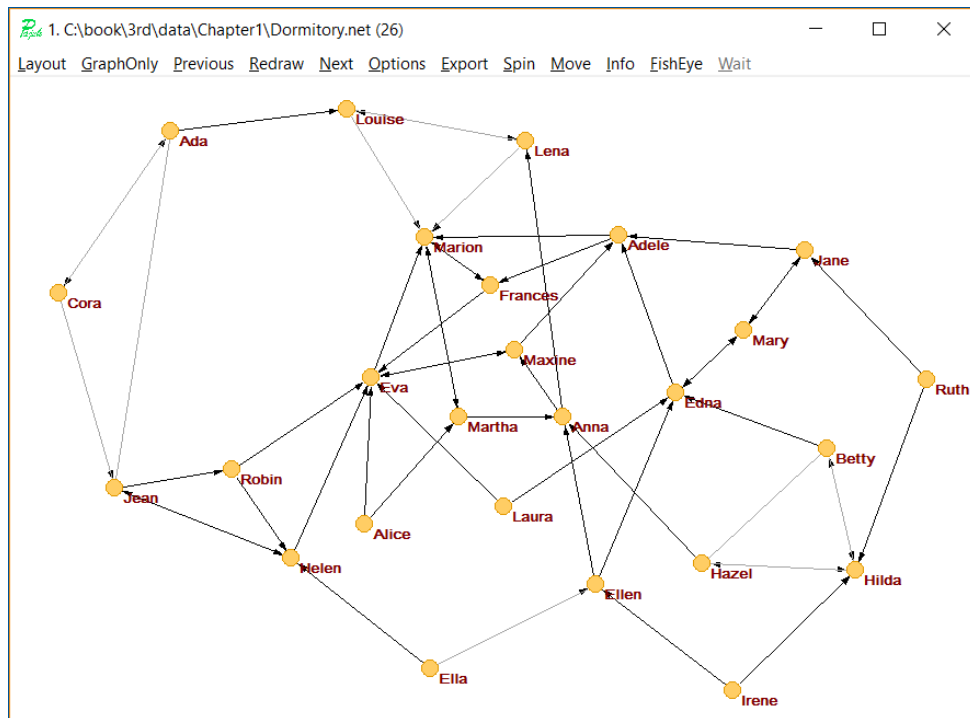


Figure 9 - Draw screen in Pajek.

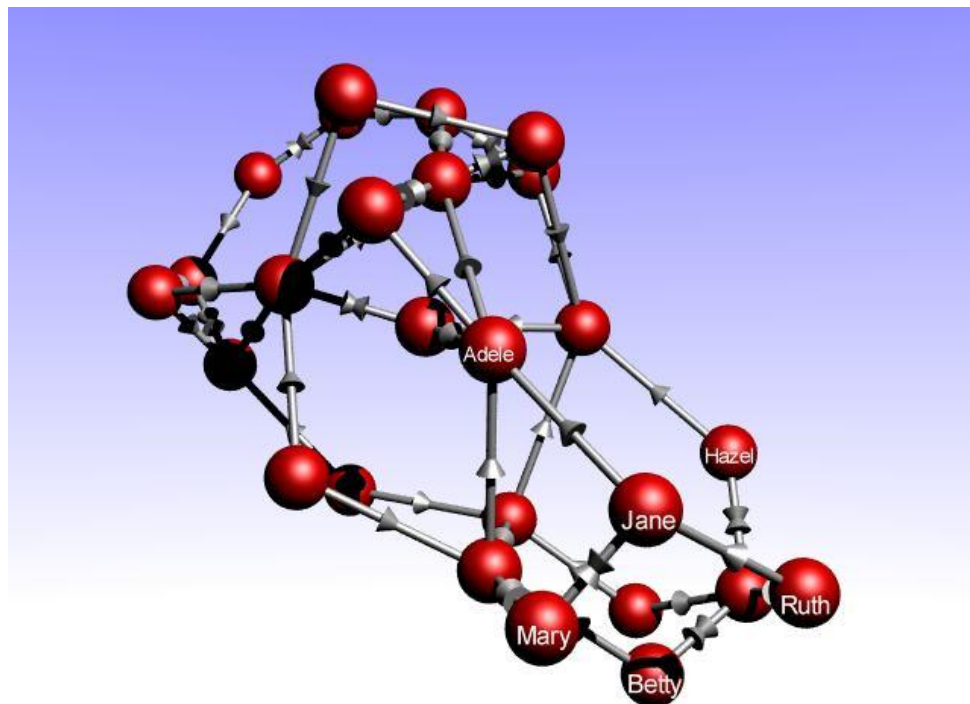


Figure 14 - A 3-D rendering of the dining-table partners network.

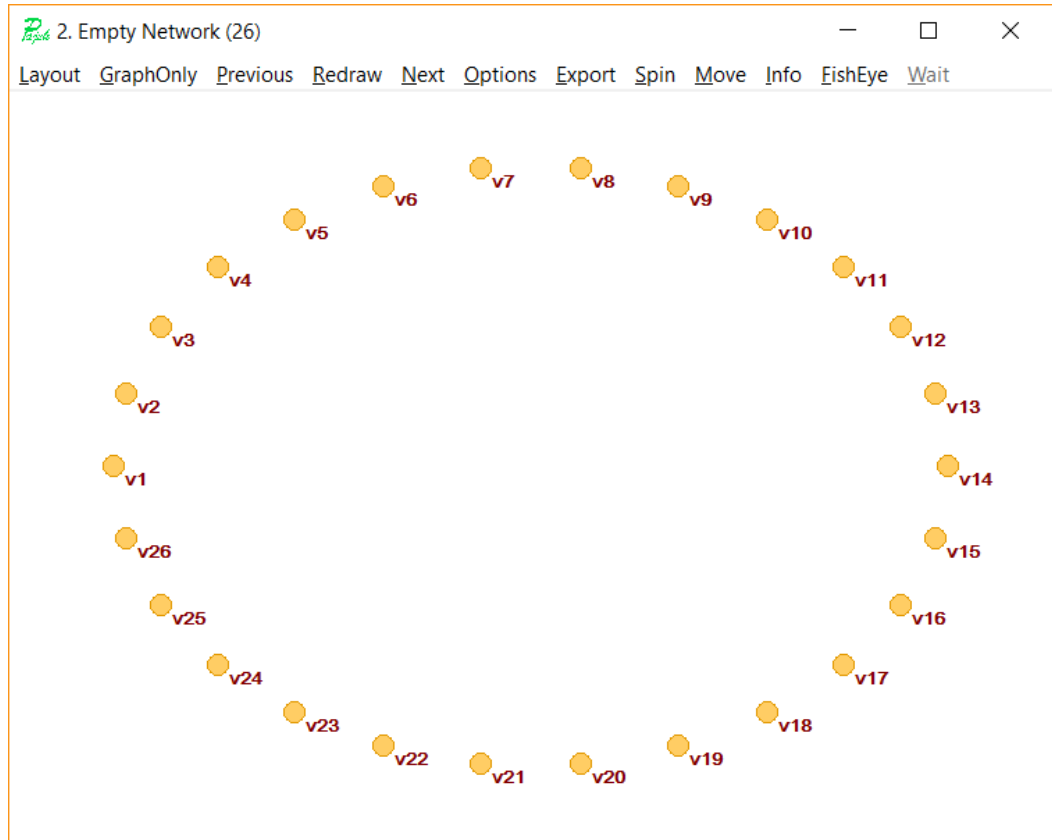


Figure 15 - Random network without lines.

2 Attributes and relations



Figure 17 - World trade of manufactures of metal and world system position.



Figure 19 – Vertex colors according to a partition in Pajek.

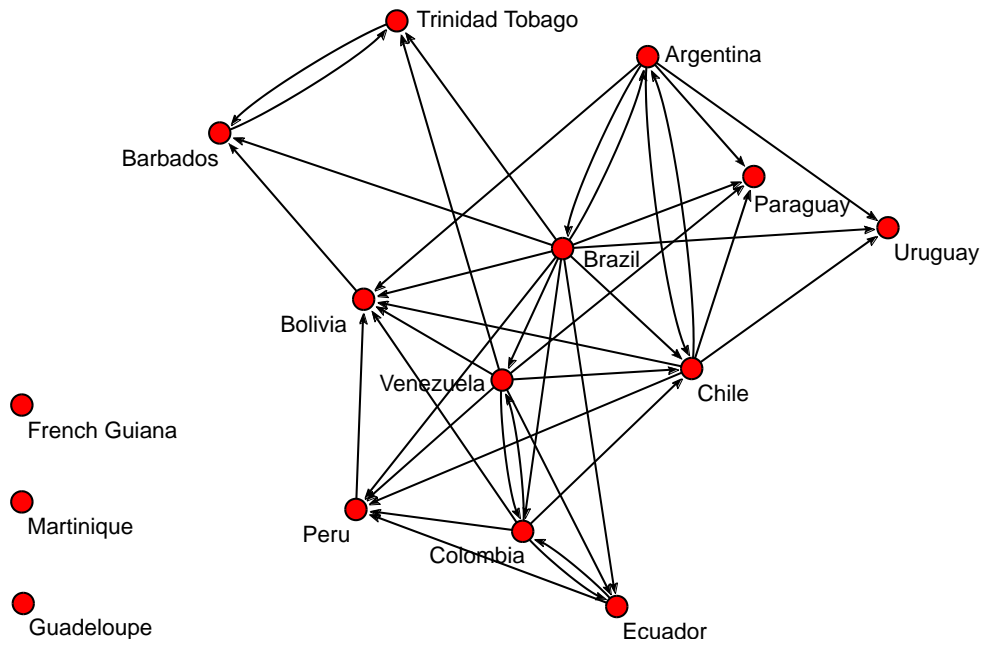


Figure 20 - Trade ties within South America.

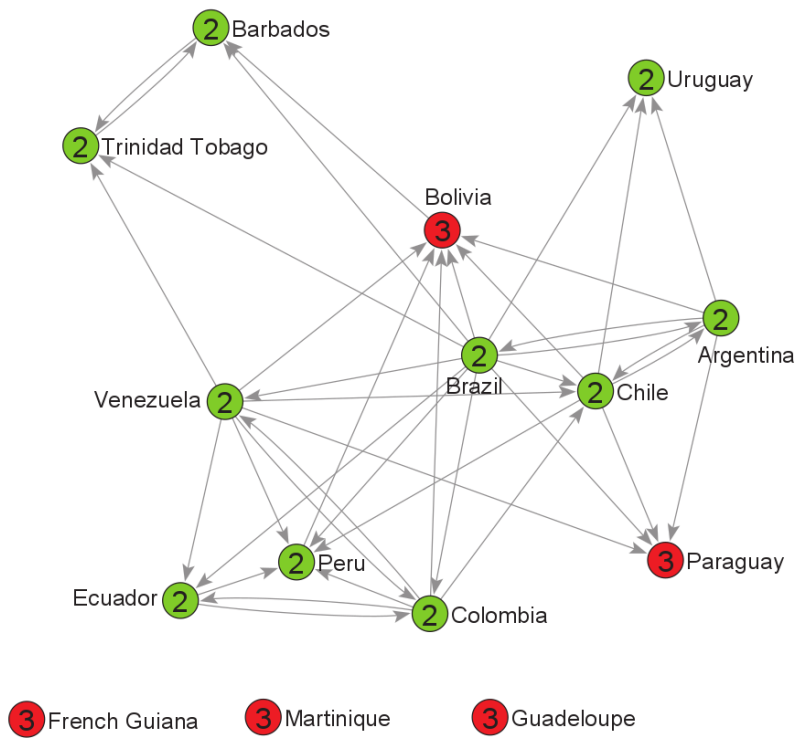


Figure 22 - World system positions in South America: (2) semiperiphery and (3) periphery.

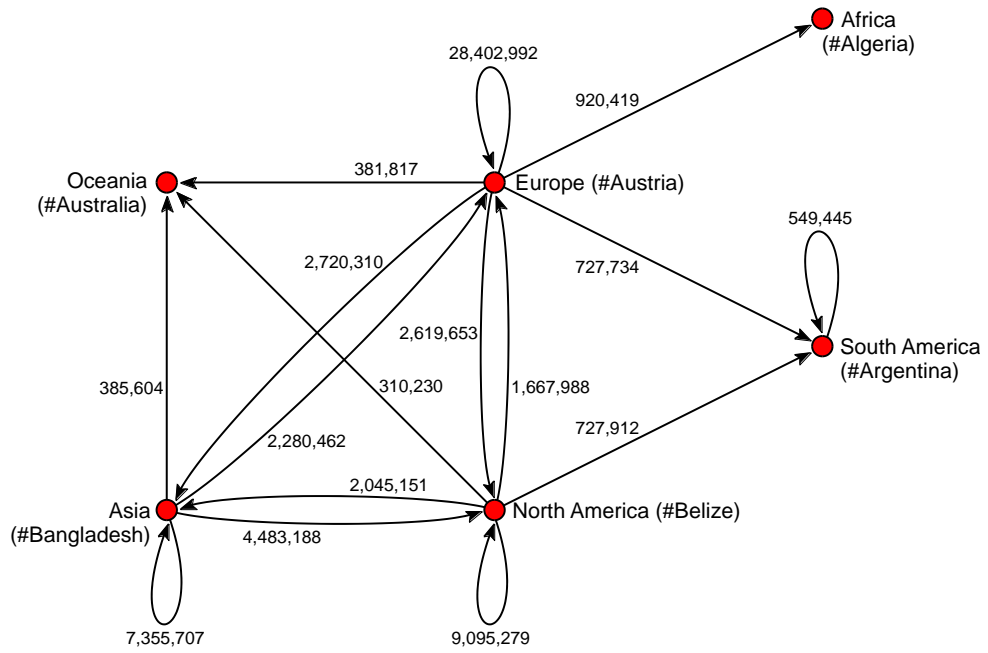


Figure 23 - Trade in manufactures of metal among continents (imports in thousand U.S.\$).

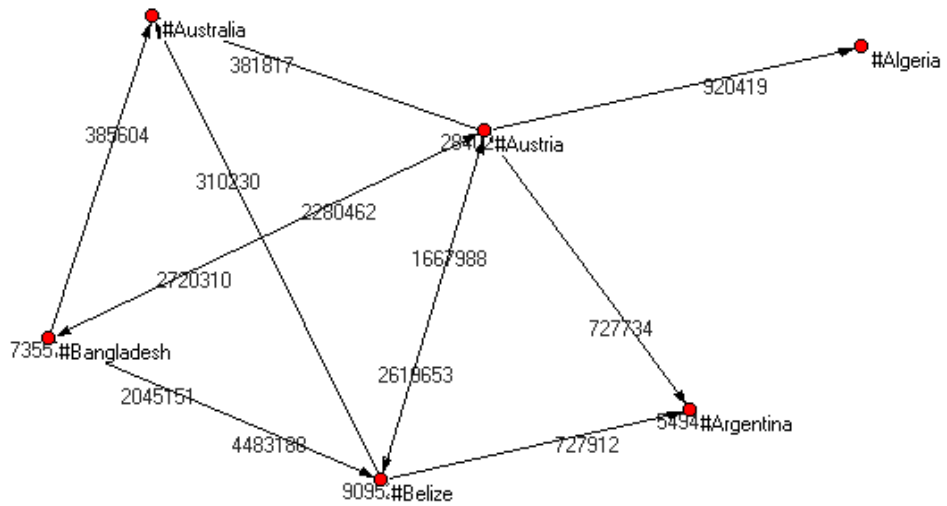


Figure 24 - Trade among continents in the Draw screen.

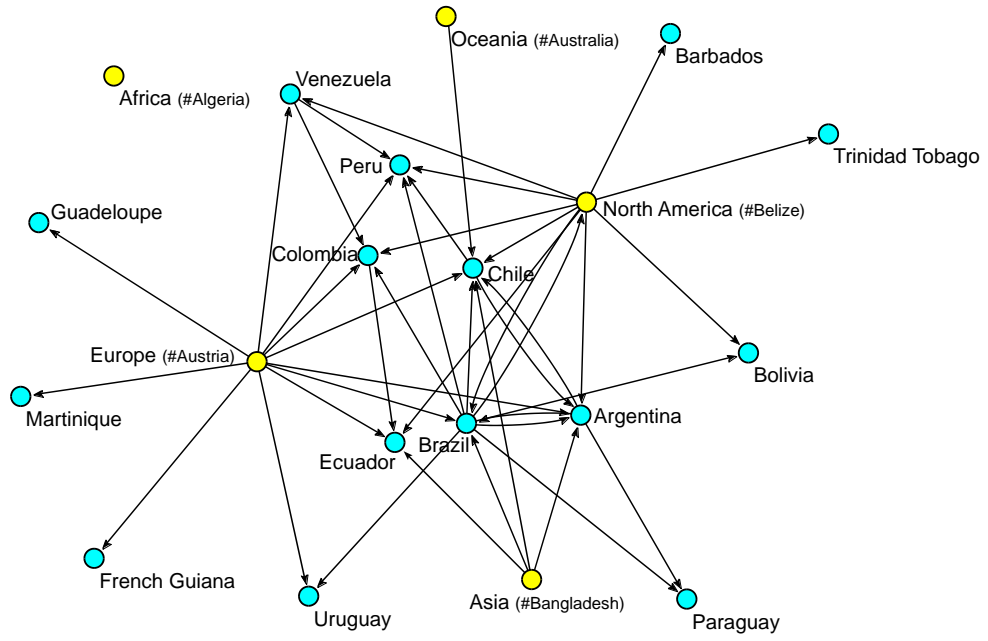


Figure 25 - Contextual view of trade in South America.

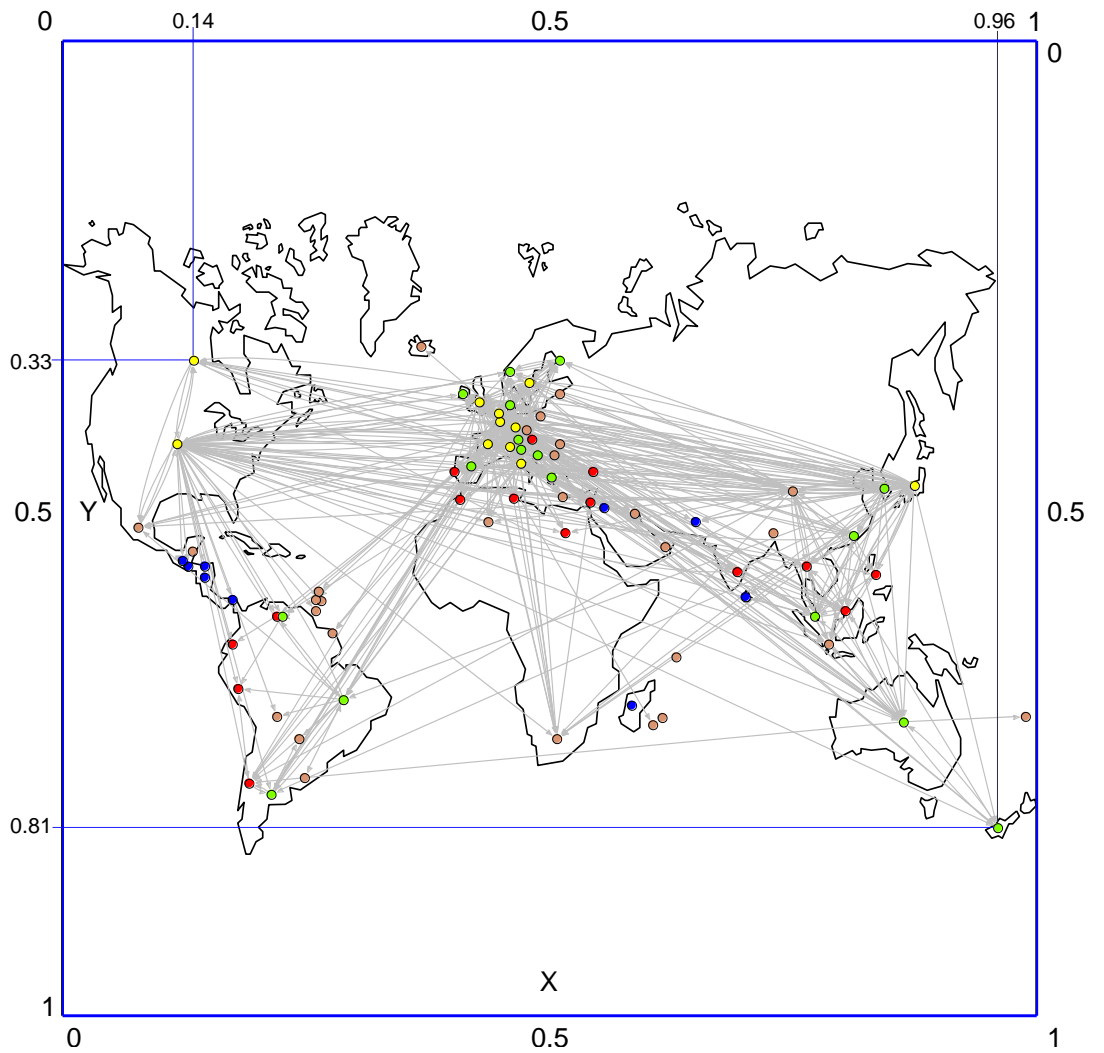


Figure 26 - Geographical view of world trade in manufactures of metal, ca. 1994.

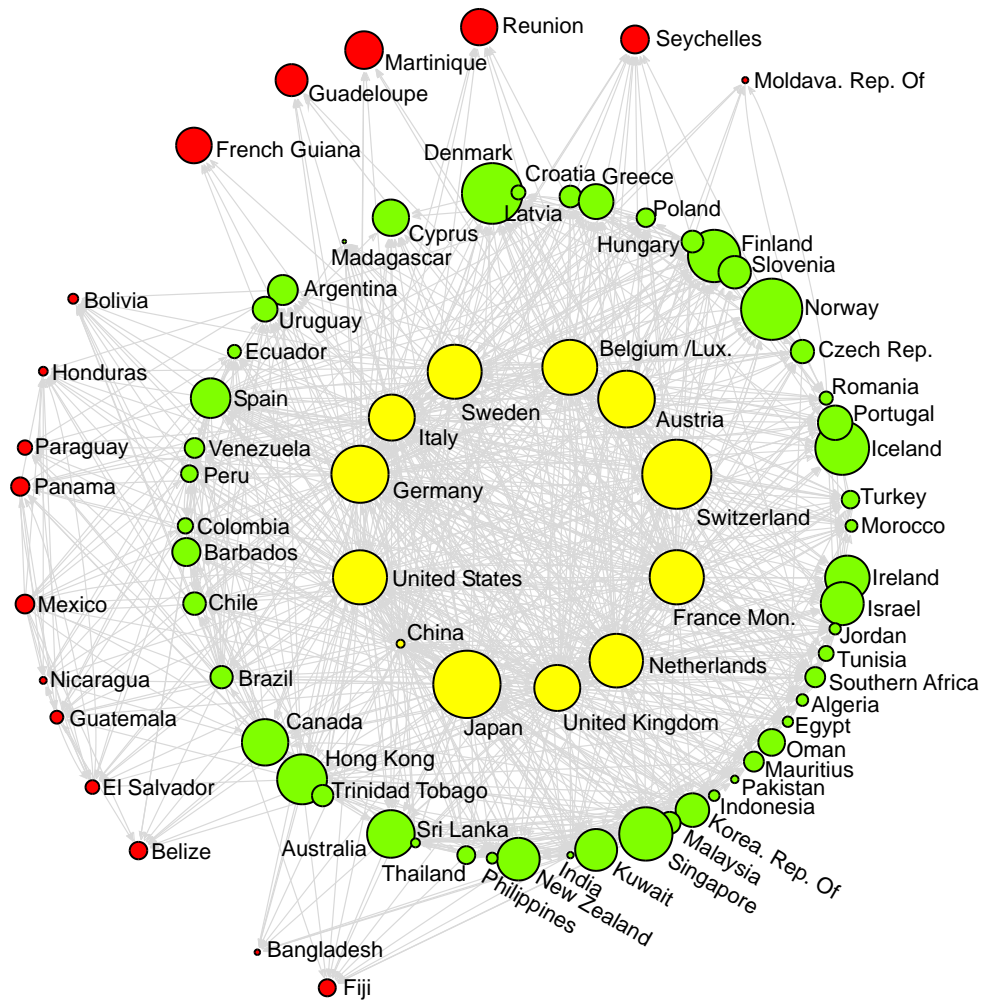


Figure 28 - Trade, position in the world system, and GDP per capita.

Answers to the Exercises

Exercise II:

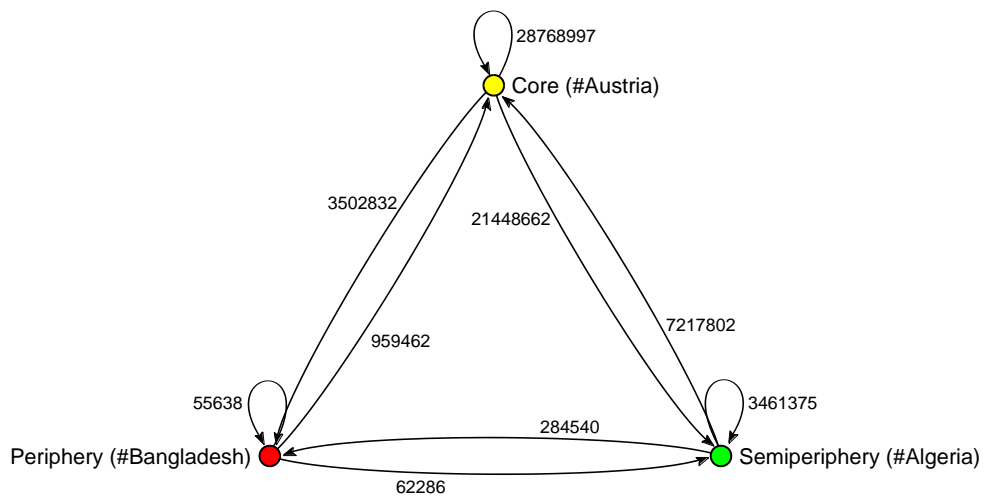


Figure 29 - Aggregate trade in manufactures of metal among world system positions.

3 Cohesive subgroups

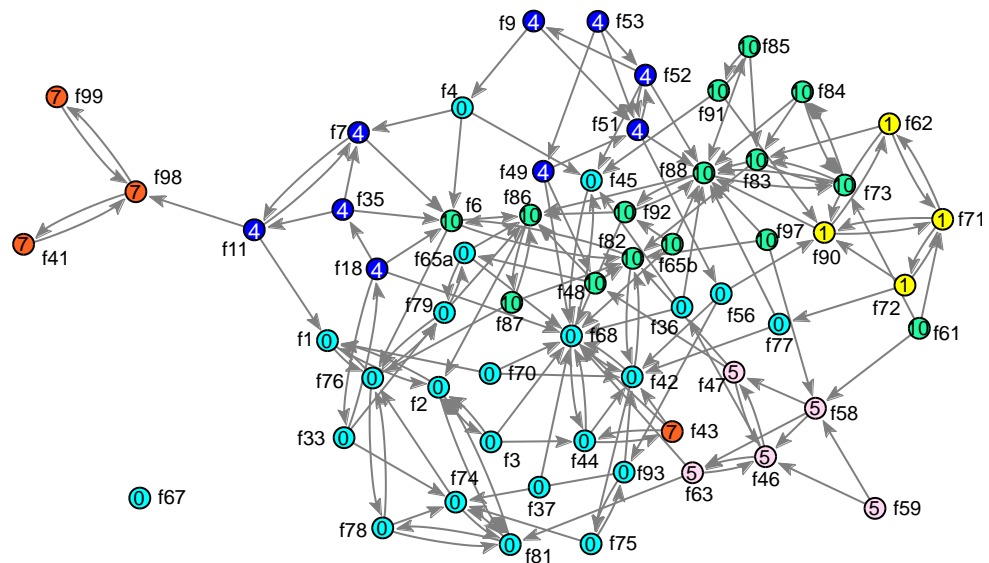


Figure 31 - Visiting ties in Attiro.

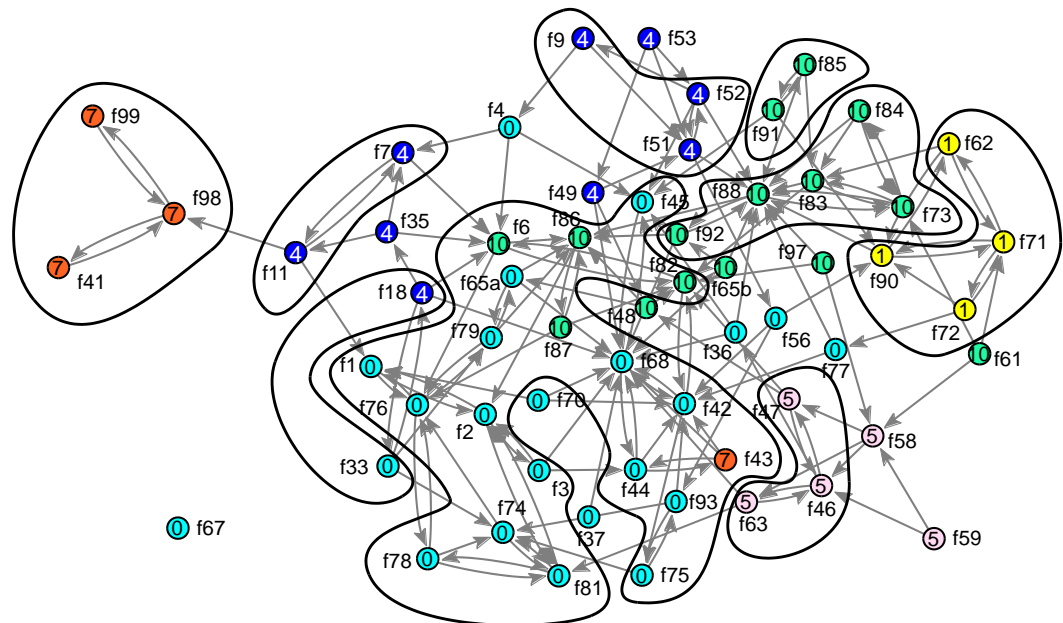


Figure 33 - Strong components (contours) and family-friendship groupings (vertex colors and numbers) in the network of Attiro.

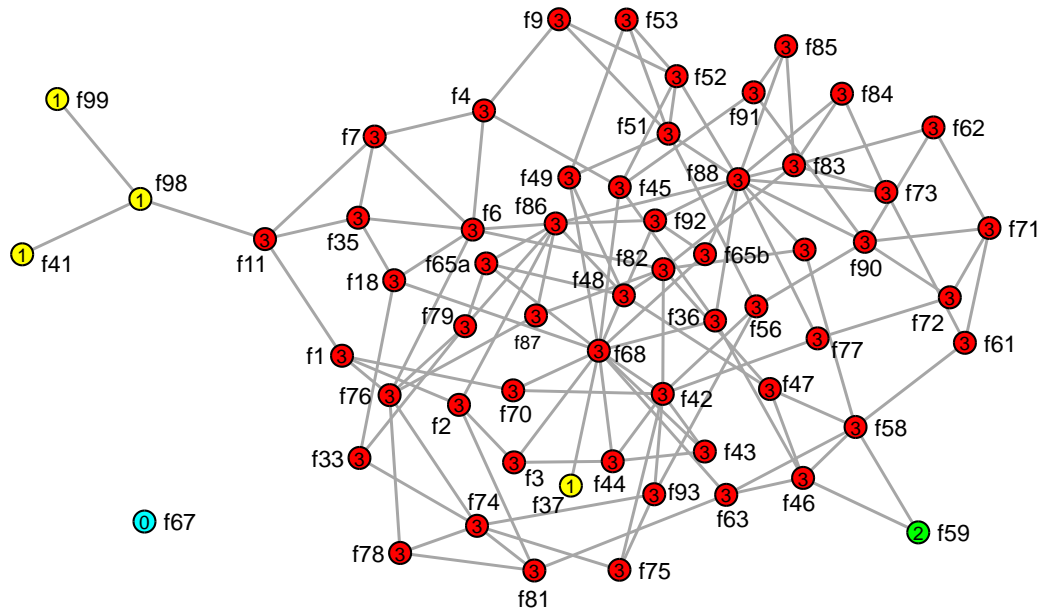


Figure 34 - k -cores in the visiting network at Attiro.

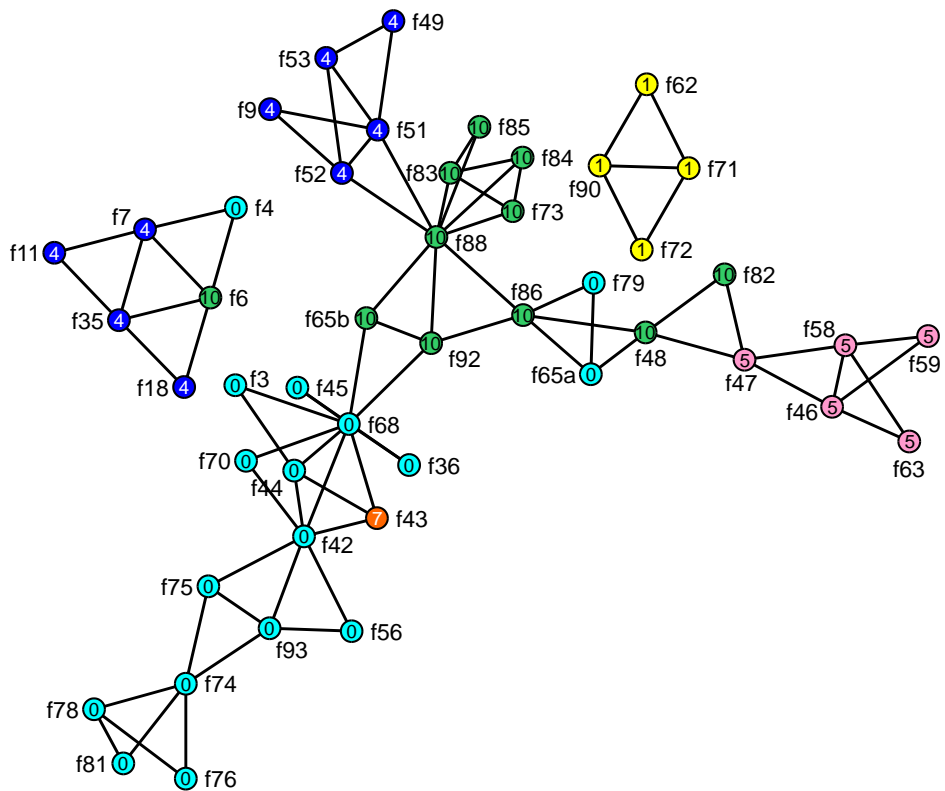


Figure 40 - Complete triads and family-friendship groupings (colors and numbers inside vertices).

4 Sentiments and friendship

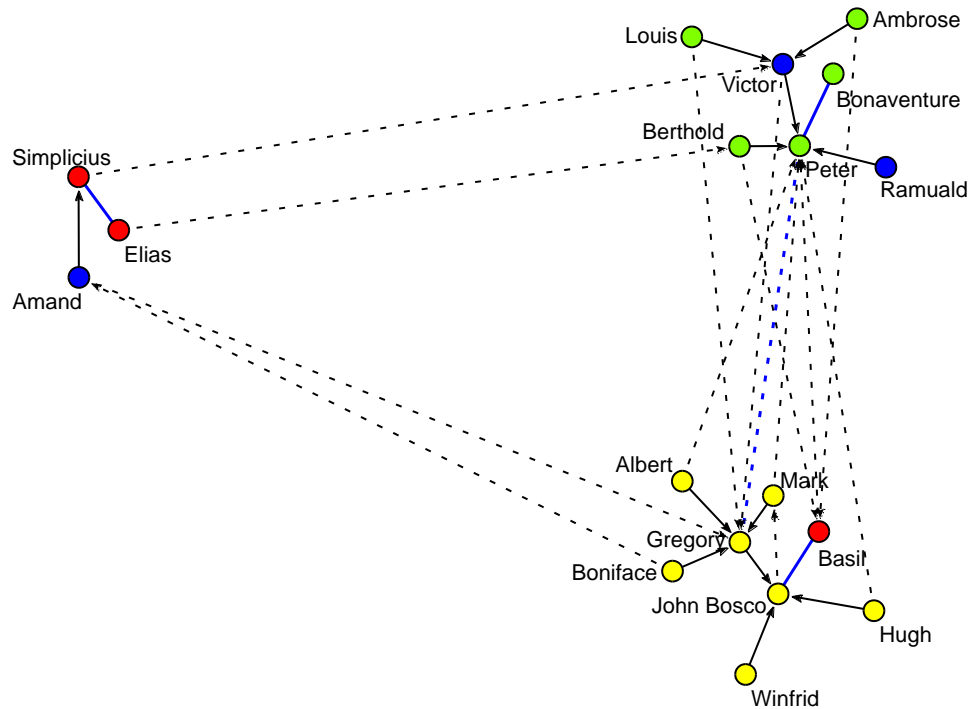


Figure 45 - First positive and negative choices between novices at time four (T4).

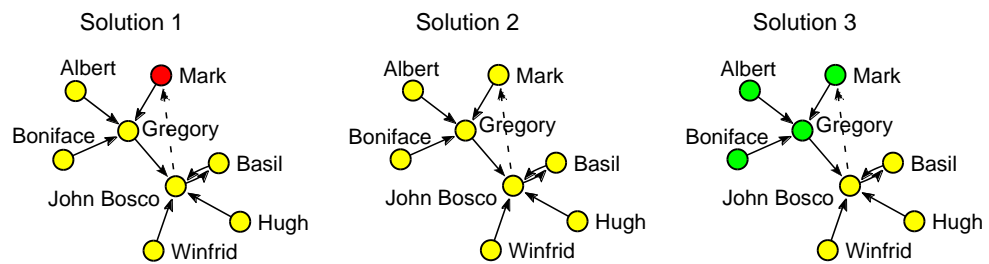


Figure 47 - Three solutions with one error.

Answers to Exercises I

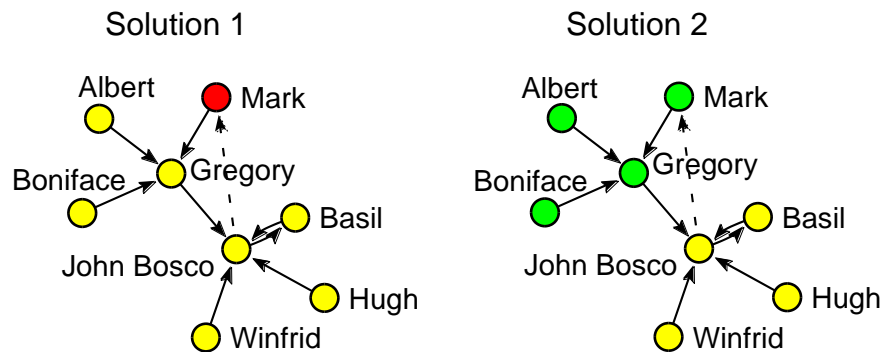


Figure 49 - Differences between two solutions with 4 classes.

5 Affiliations

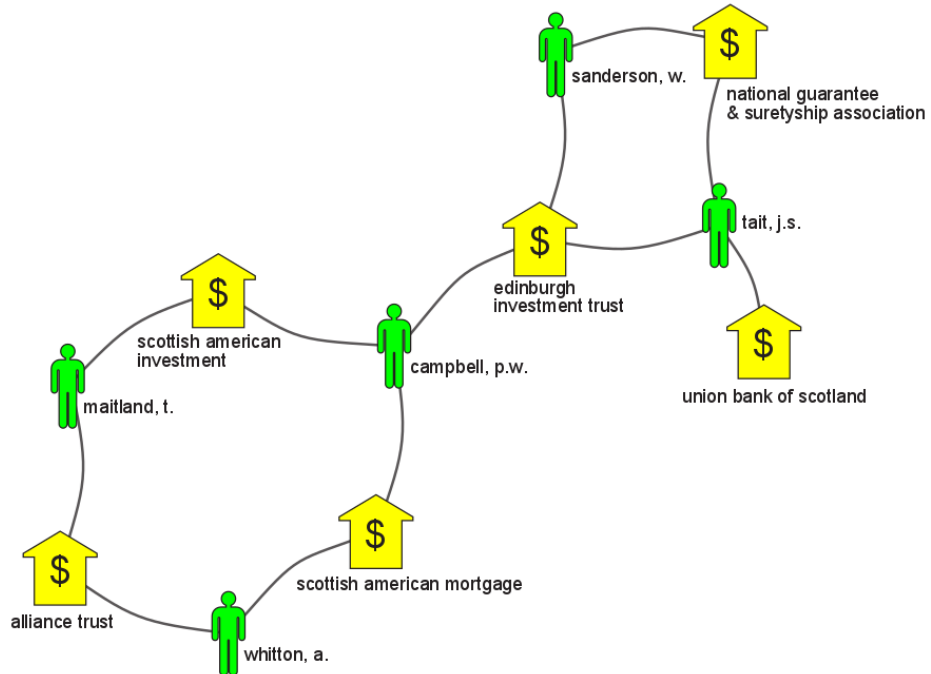


Figure 50 - A fragment of the Sottish directorates network.

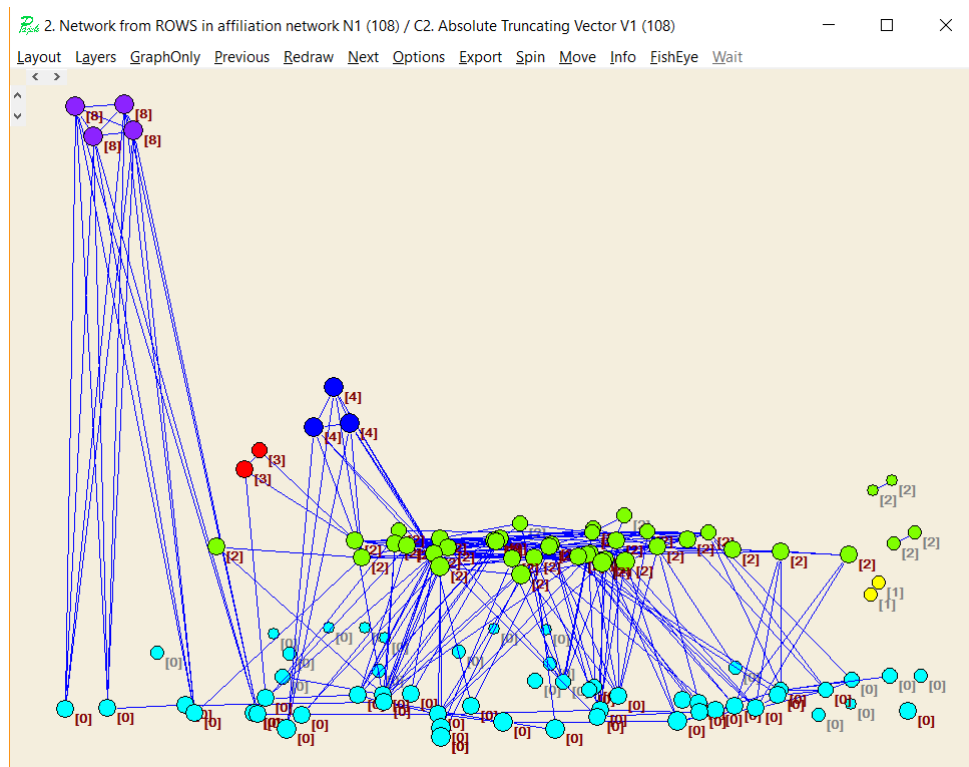


Figure 55 – Islands in three dimensions.

6 Center and periphery

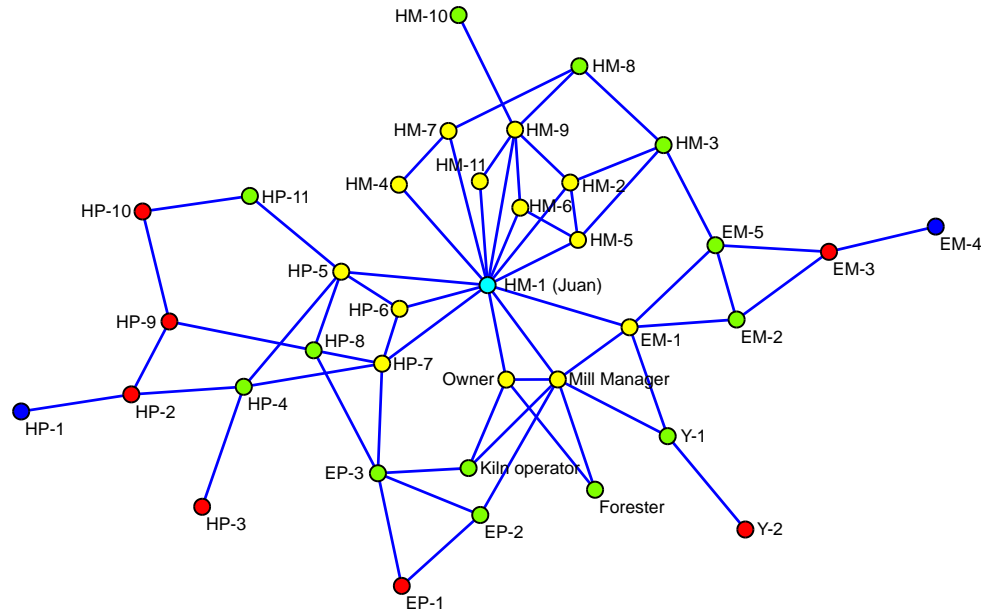


Figure 60 - Distances to or from Juan.

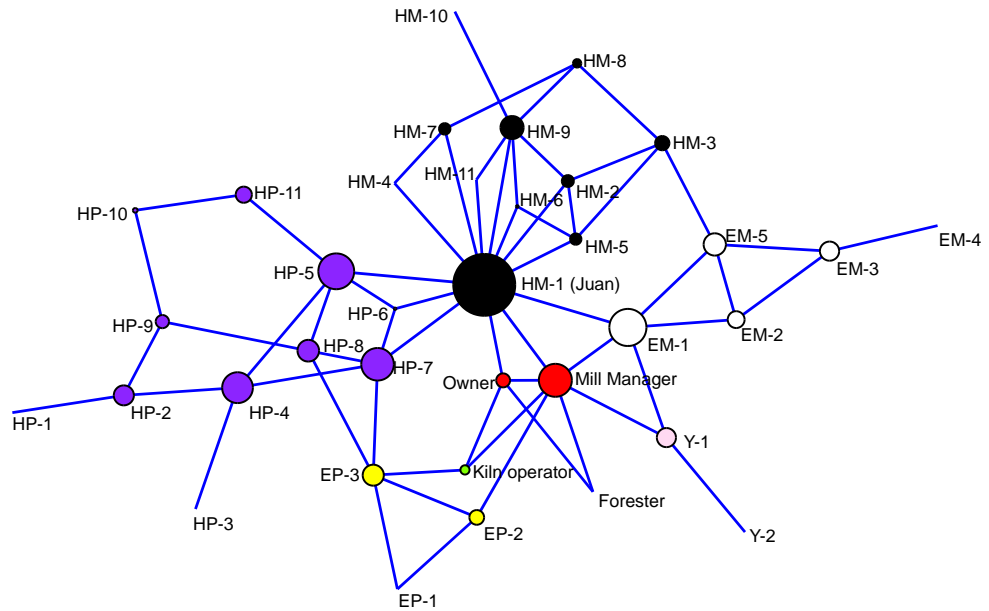


Figure 62 - Betweenness centrality in the sawmill.

7 Brokers and bridges

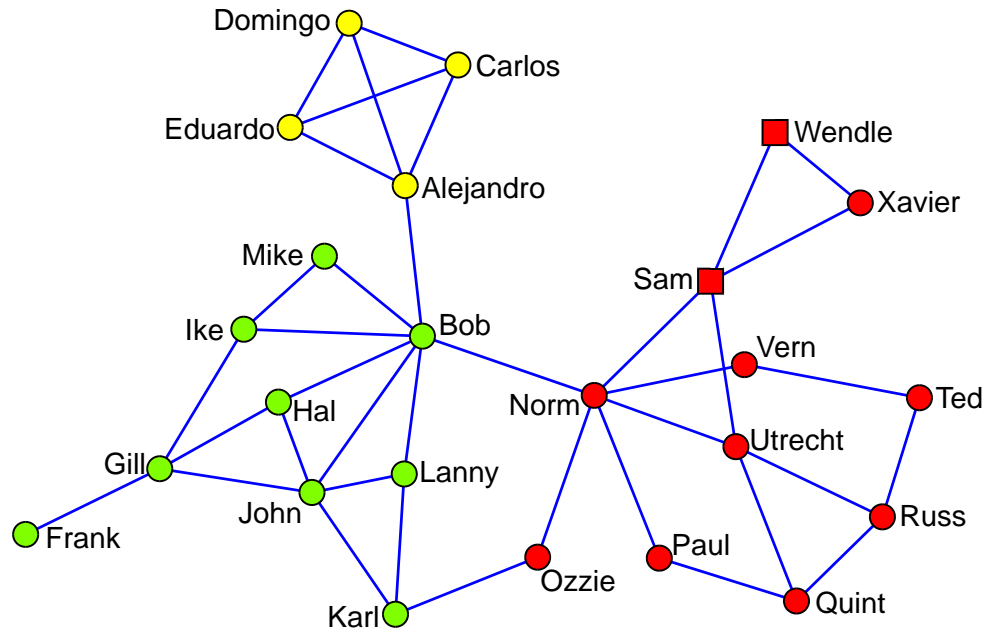


Figure 63 - Communication network of striking employees.

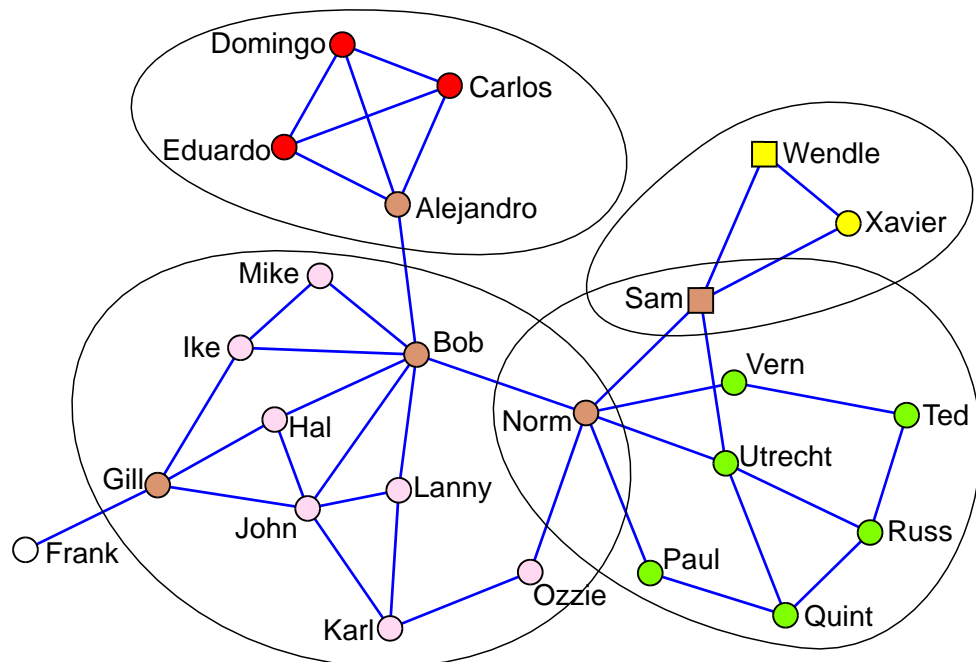


Figure 64 - Cut-vertices (gray) and bi-components (manually circled) in the strike network.

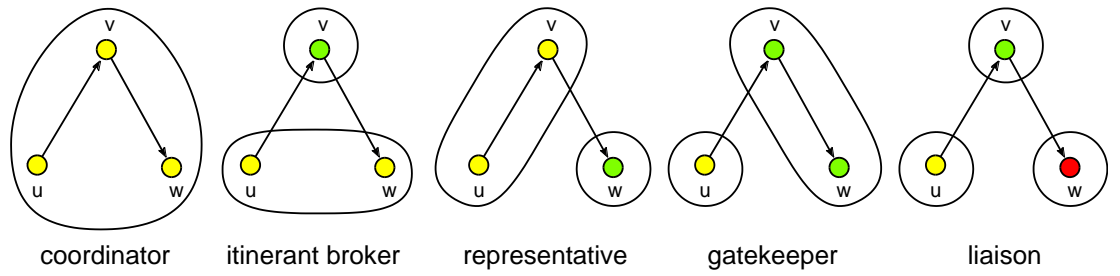


Figure 71 - Five brokerage roles of actor v.

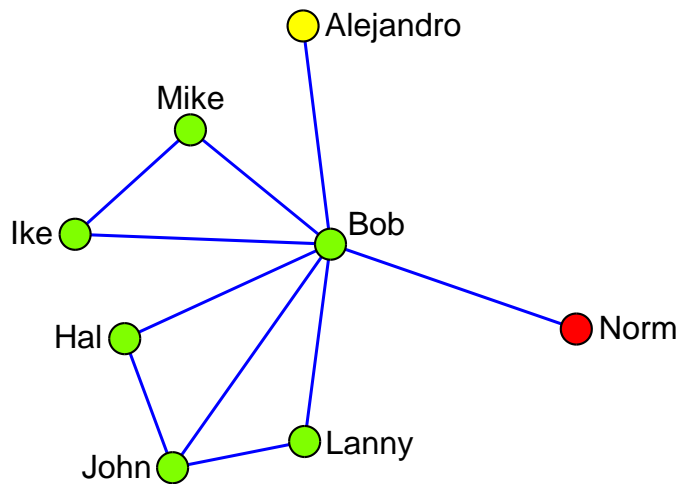


Figure 72 - Bob's ego-network.

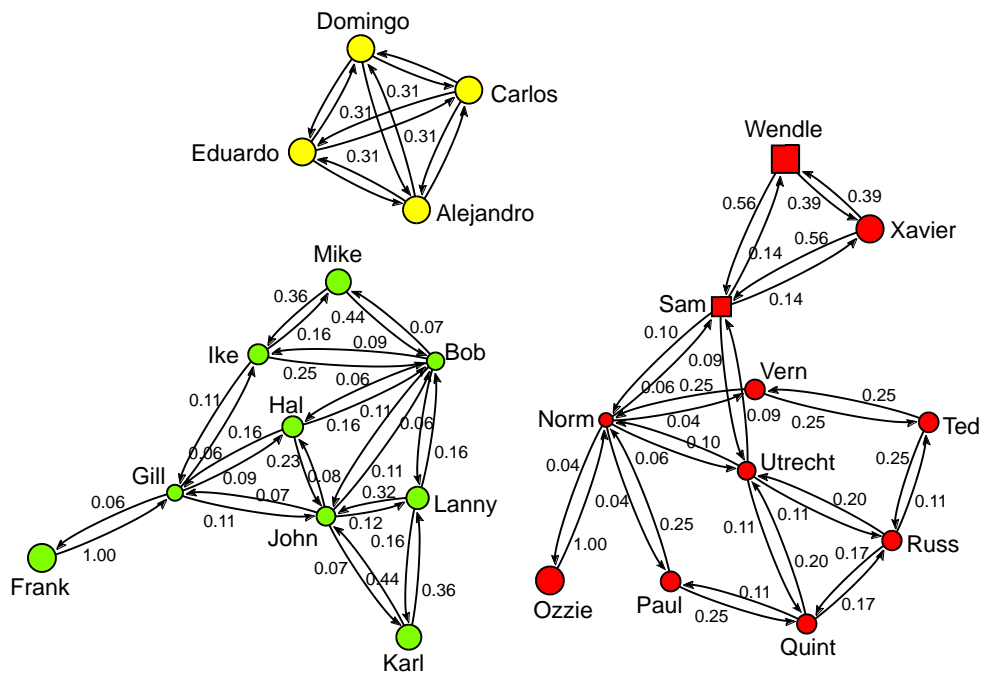
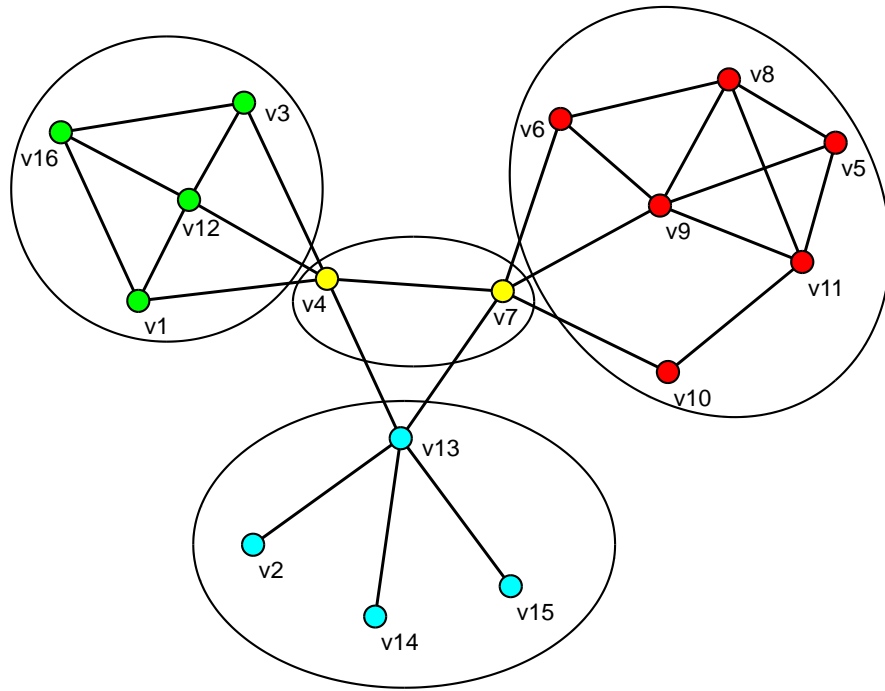


Figure 73 - Constraint inside groups.

Question 1:



8 Diffusion

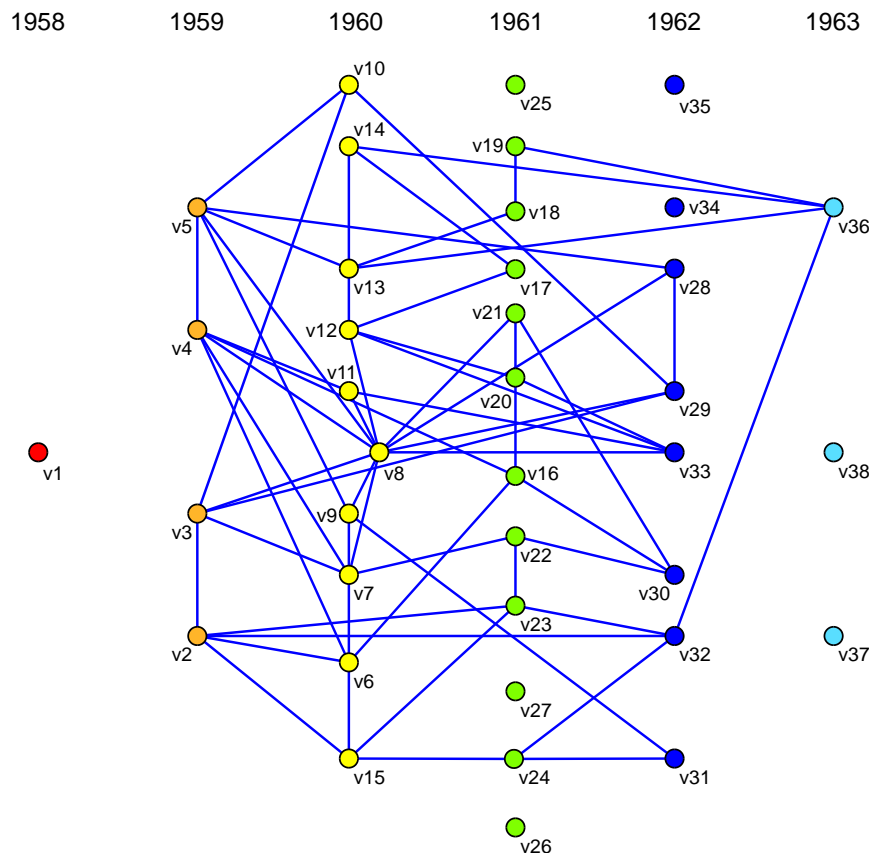


Figure 75 - Friendship ties among superintendents and year of adoption.

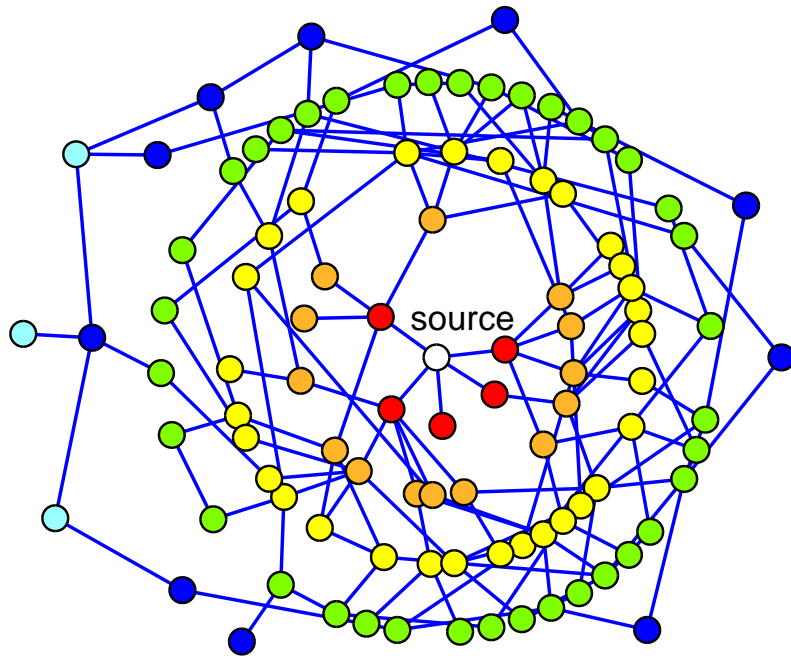


Figure 77 - Diffusion by contacts in a random network (N=100).

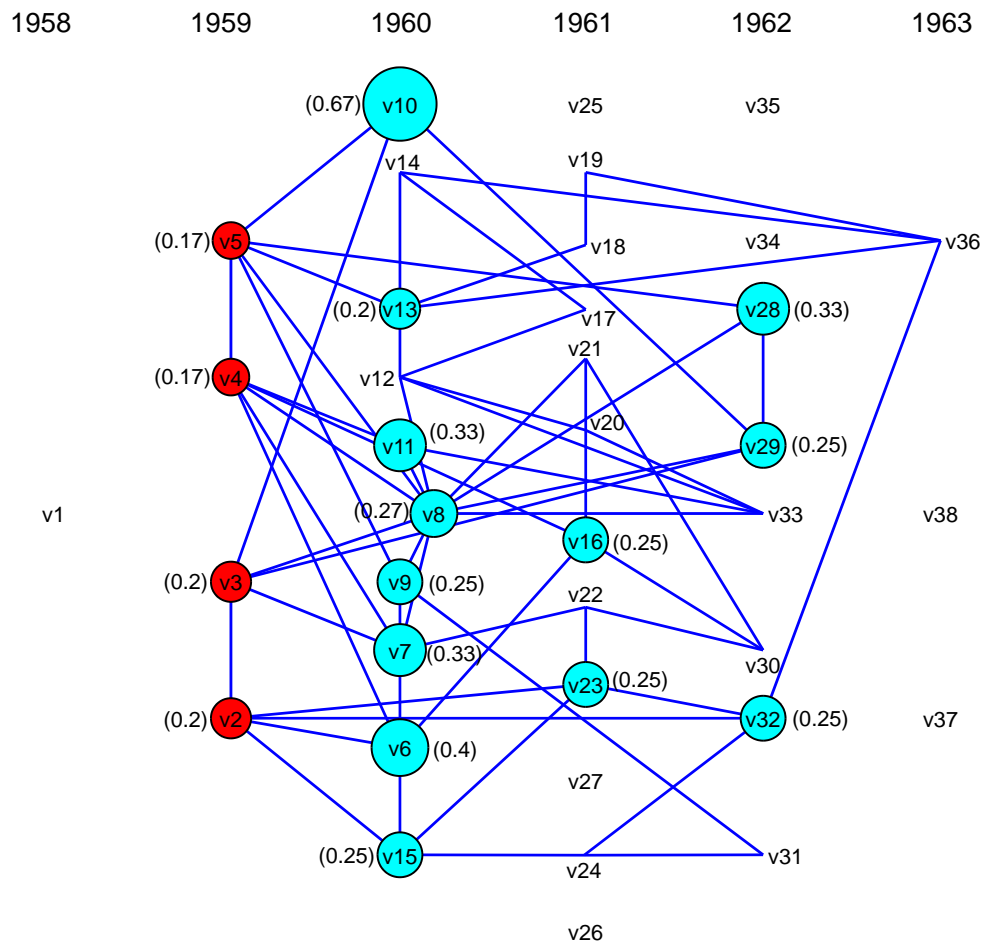


Figure 79 - Adoption (vertex color) and exposure (in brackets) at the end of 1959.

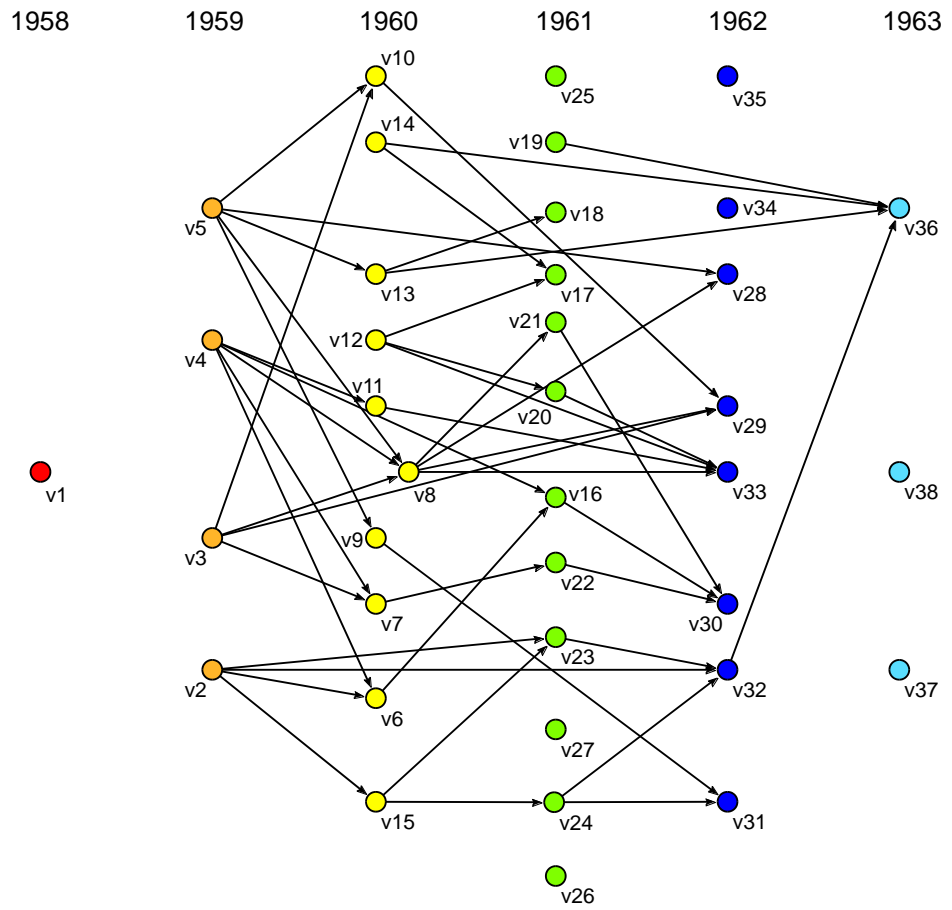


Figure 80 - Modern math network with arcs pointing towards later adopters.

9 Prestige

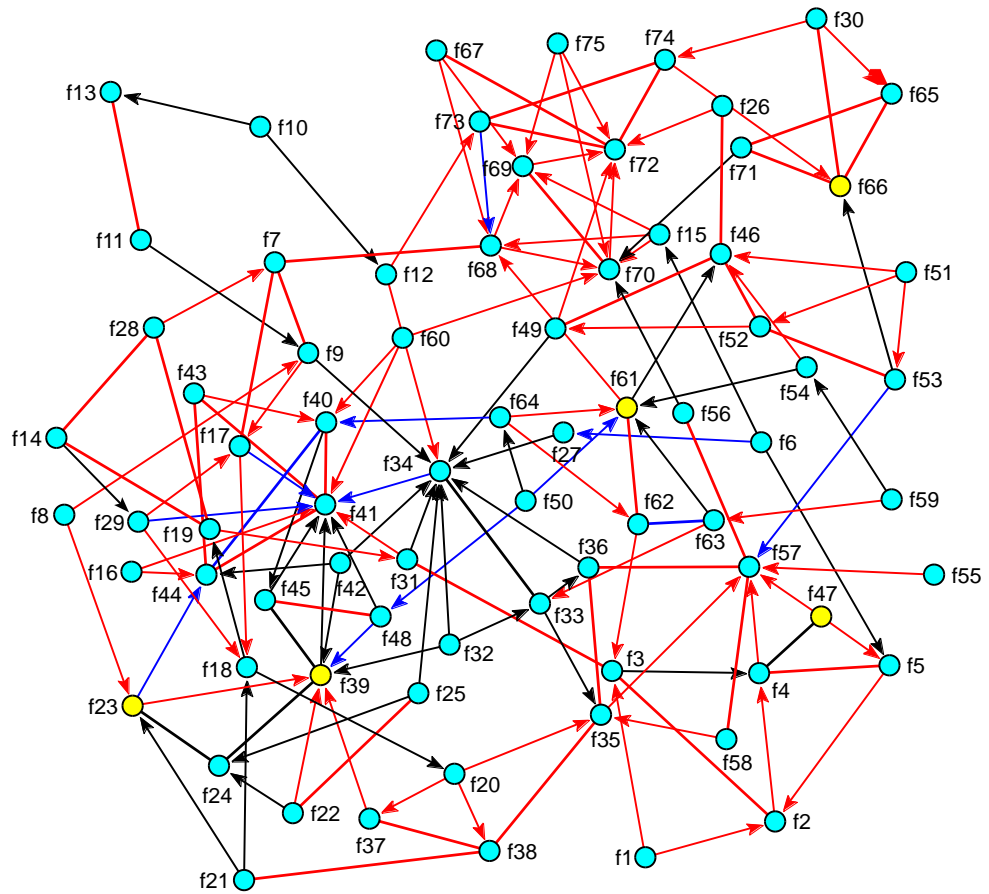


Figure 81 - Visiting ties and prestige leaders in San Juan Sur.

10 Ranking

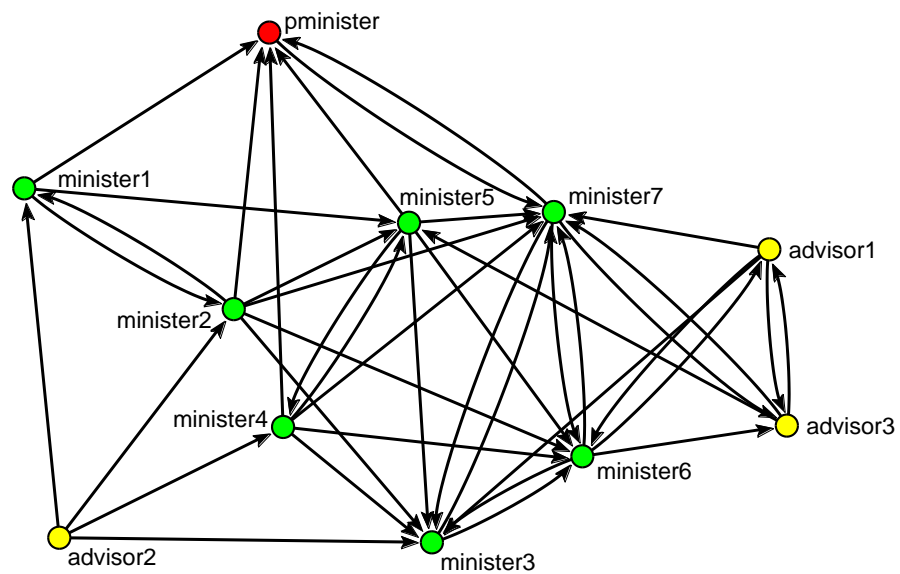


Figure 85 - Student government discussion network.

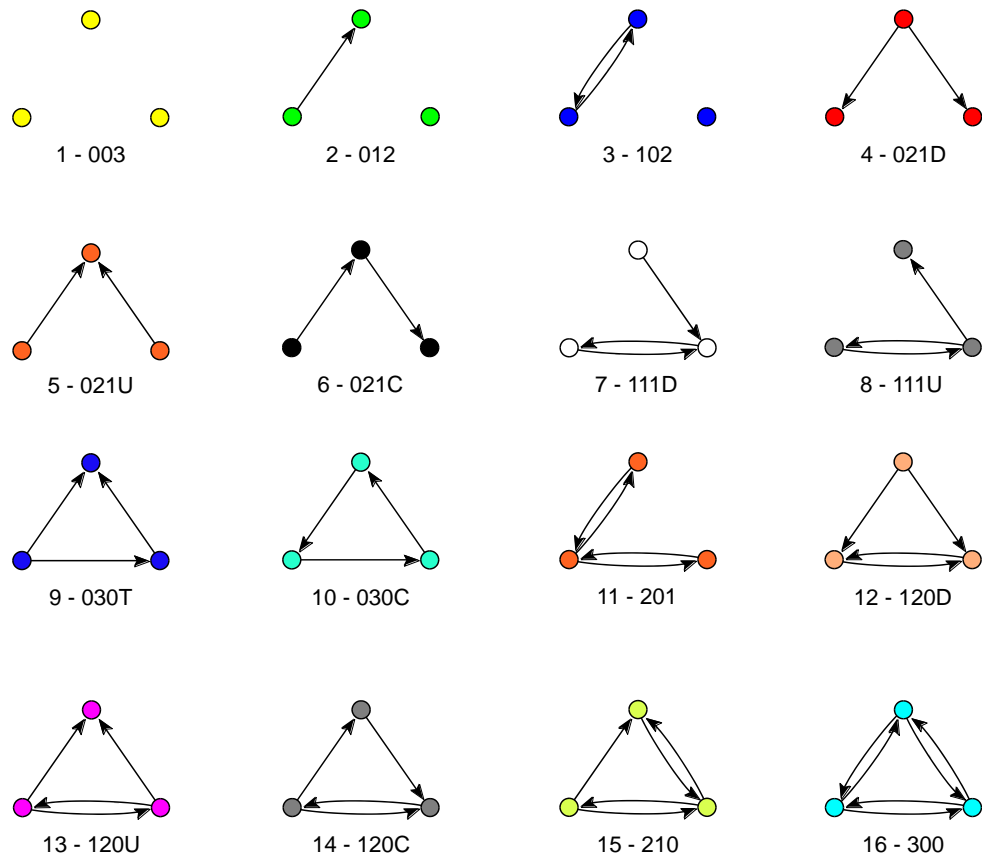


Figure 87 - Triad types with their sequential numbers in Pajek.

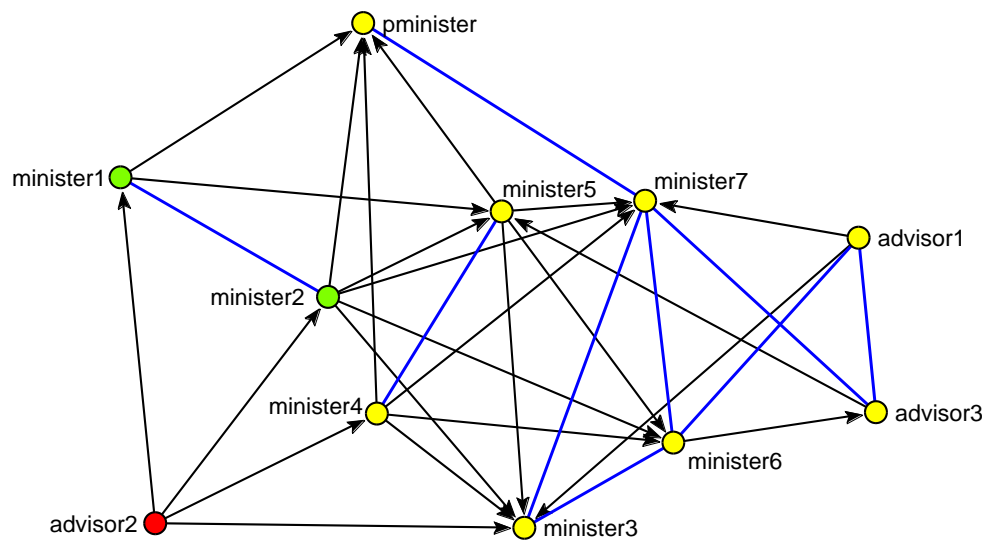


Figure 88 - Strong components in the student government discussion network.

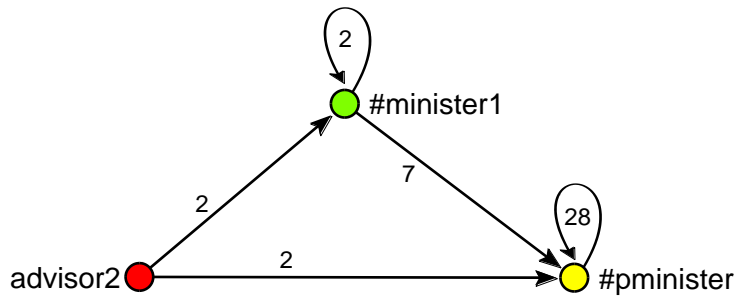


Figure 89 - Acyclic network with shrunk components.

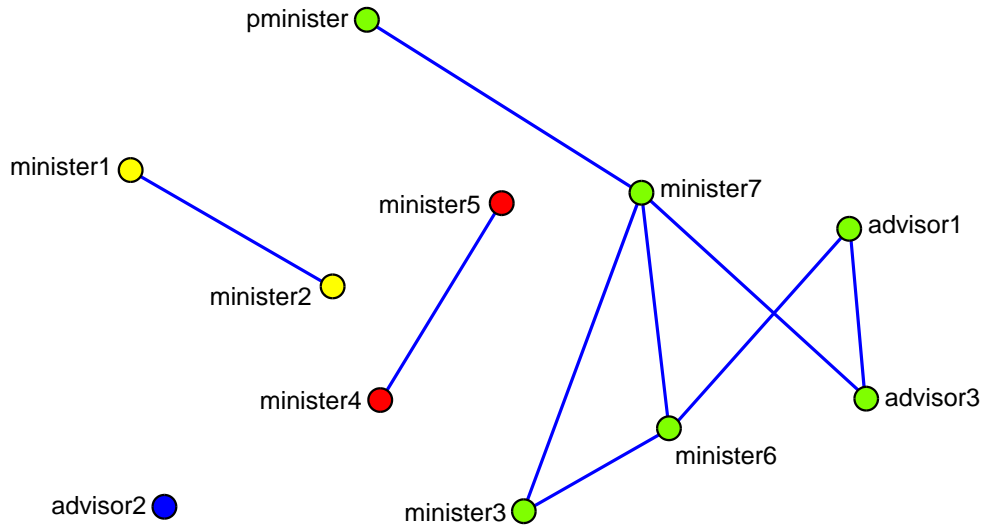


Figure 90 - Clusters of symmetric ties in the student government network.

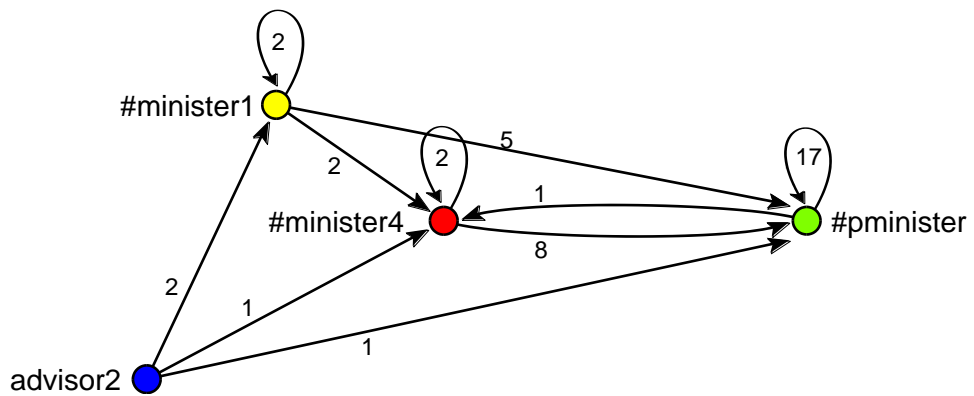


Figure 91 - Discussion network shrunk according to symmetric clusters.

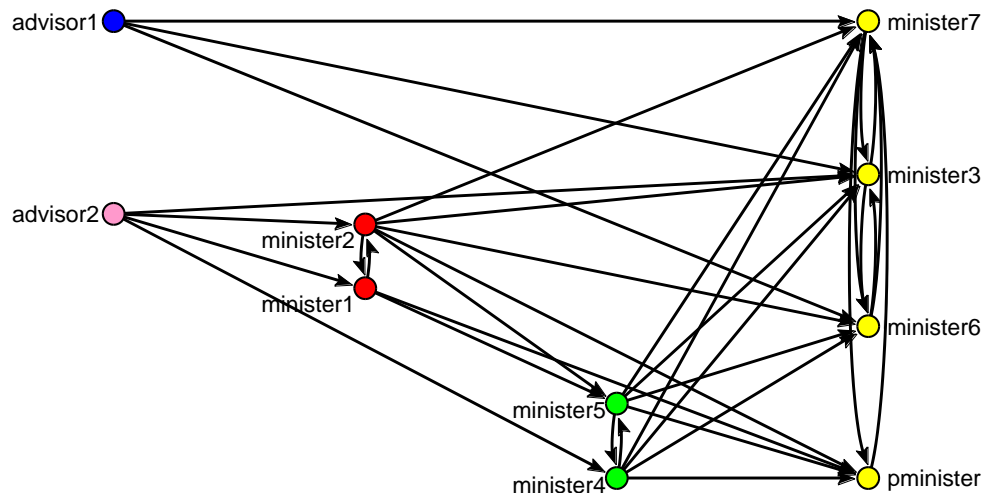


Figure 92 - Symmetric components in the (modified) student government discussion network.

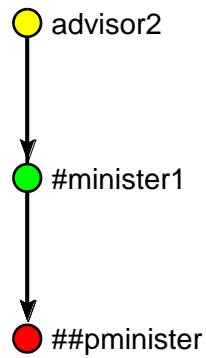


Figure 93 - The order of symmetric clusters according to the depth partition (acyclic).

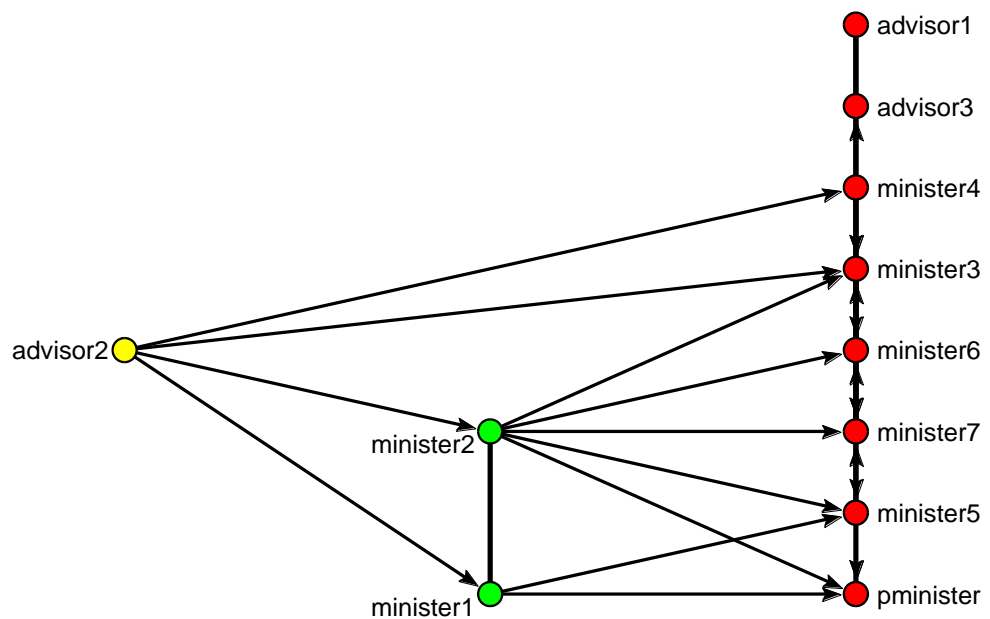
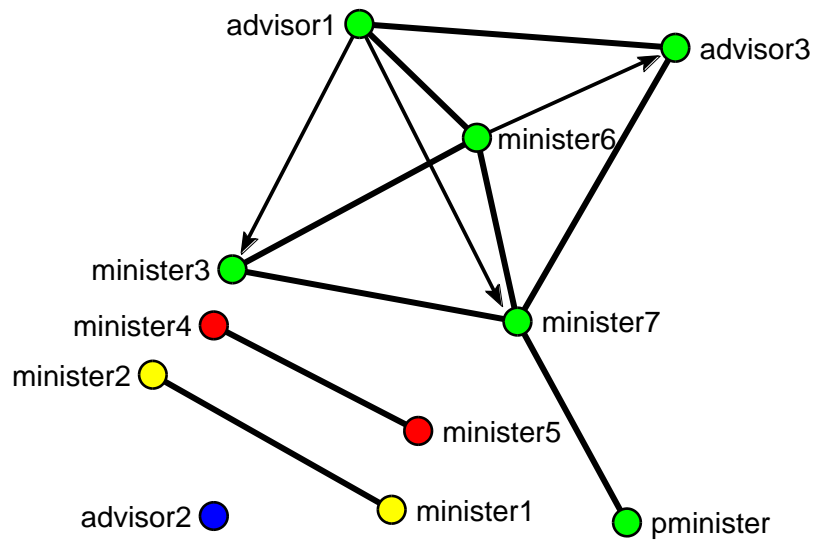


Figure 94 - Ranks in the student government discussion network.

Answers Exercises II:



11 Genealogies and citations

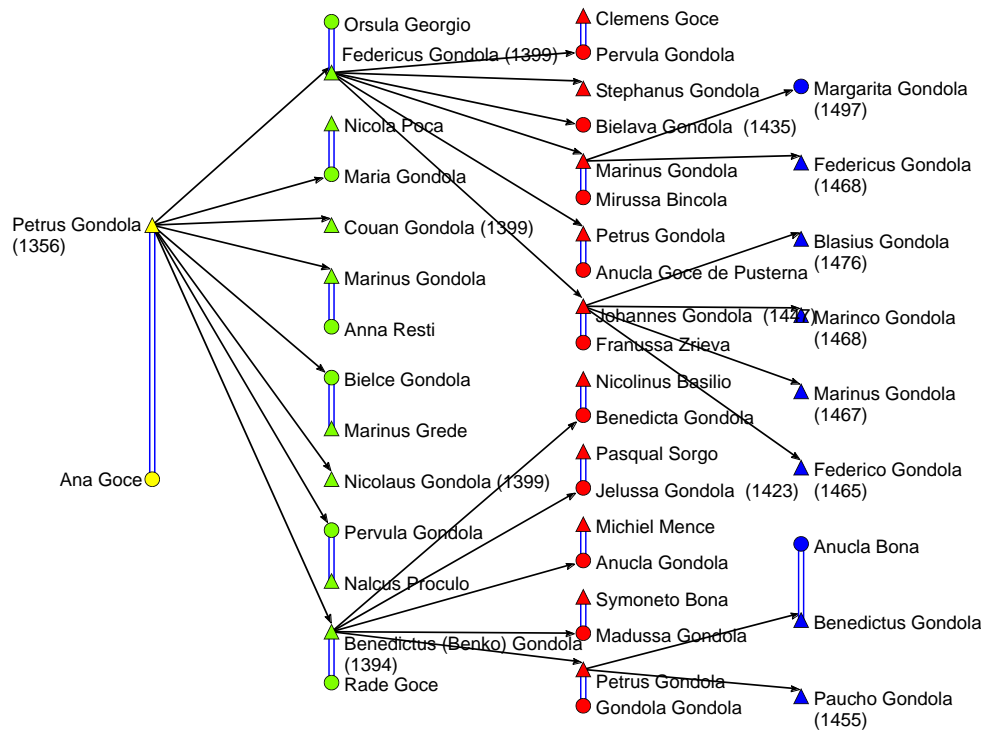


Figure 95 - Three generations of descendants to Petrus Gondola (years of birth).

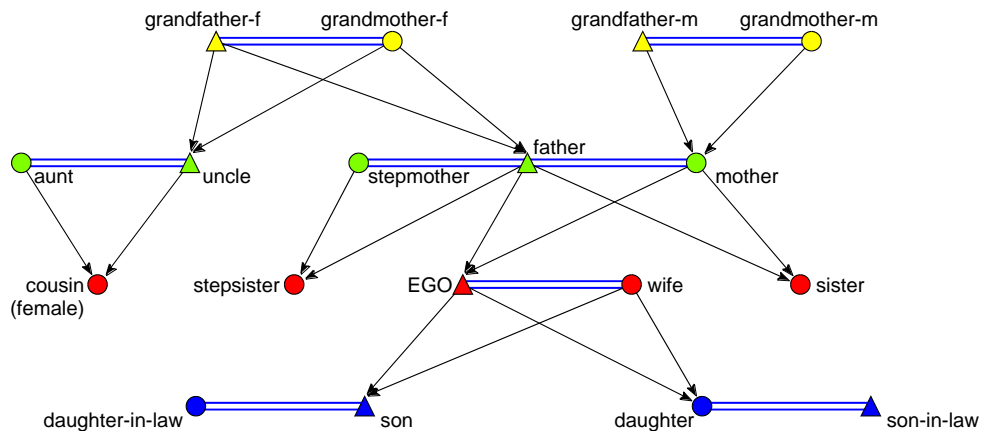


Figure 96 - Ore graph.

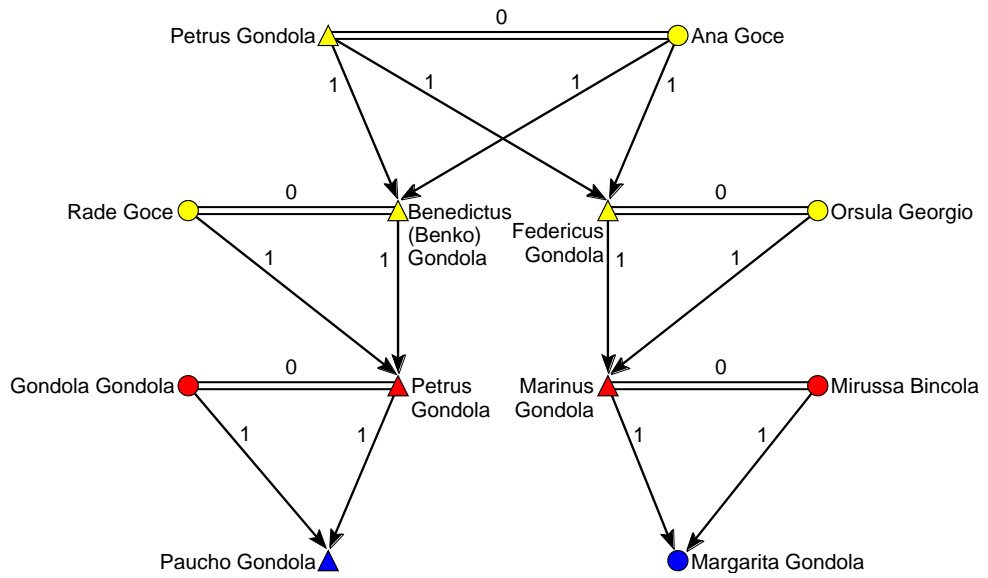


Figure 98 - Shortest paths between Paucho and Margarita Gondola.

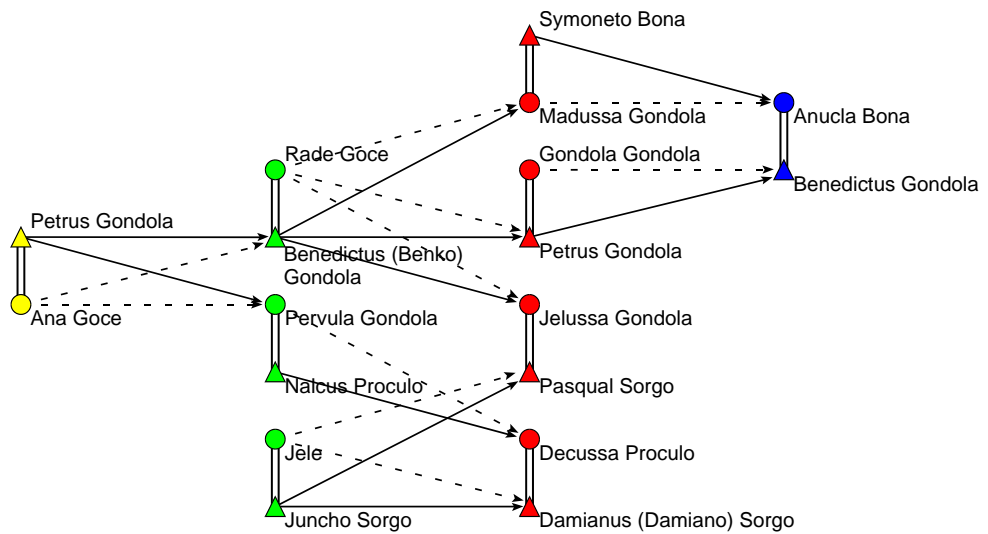


Figure 99 - Structural relinking in an Ore graph.

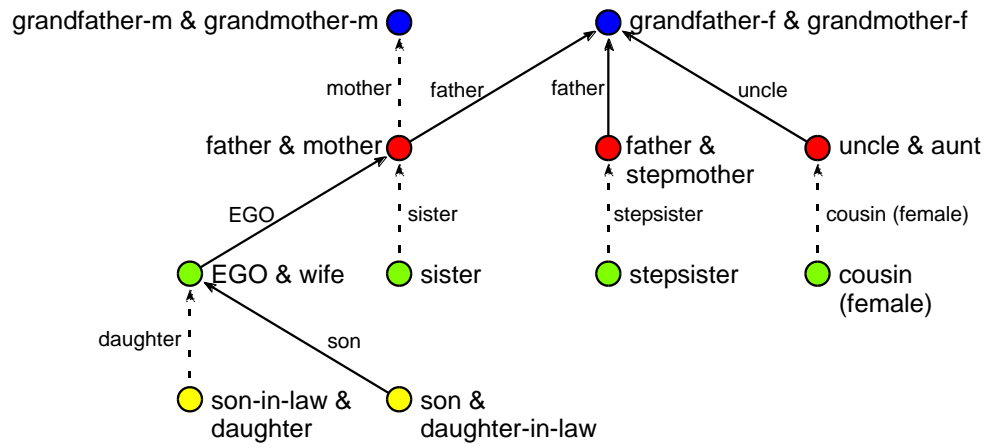


Figure 100 - P-graph.

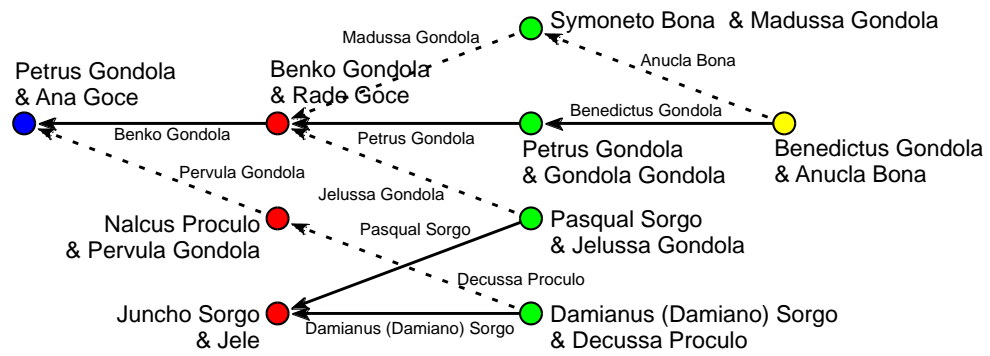


Figure 101 - Structural relinking in a P-graph.

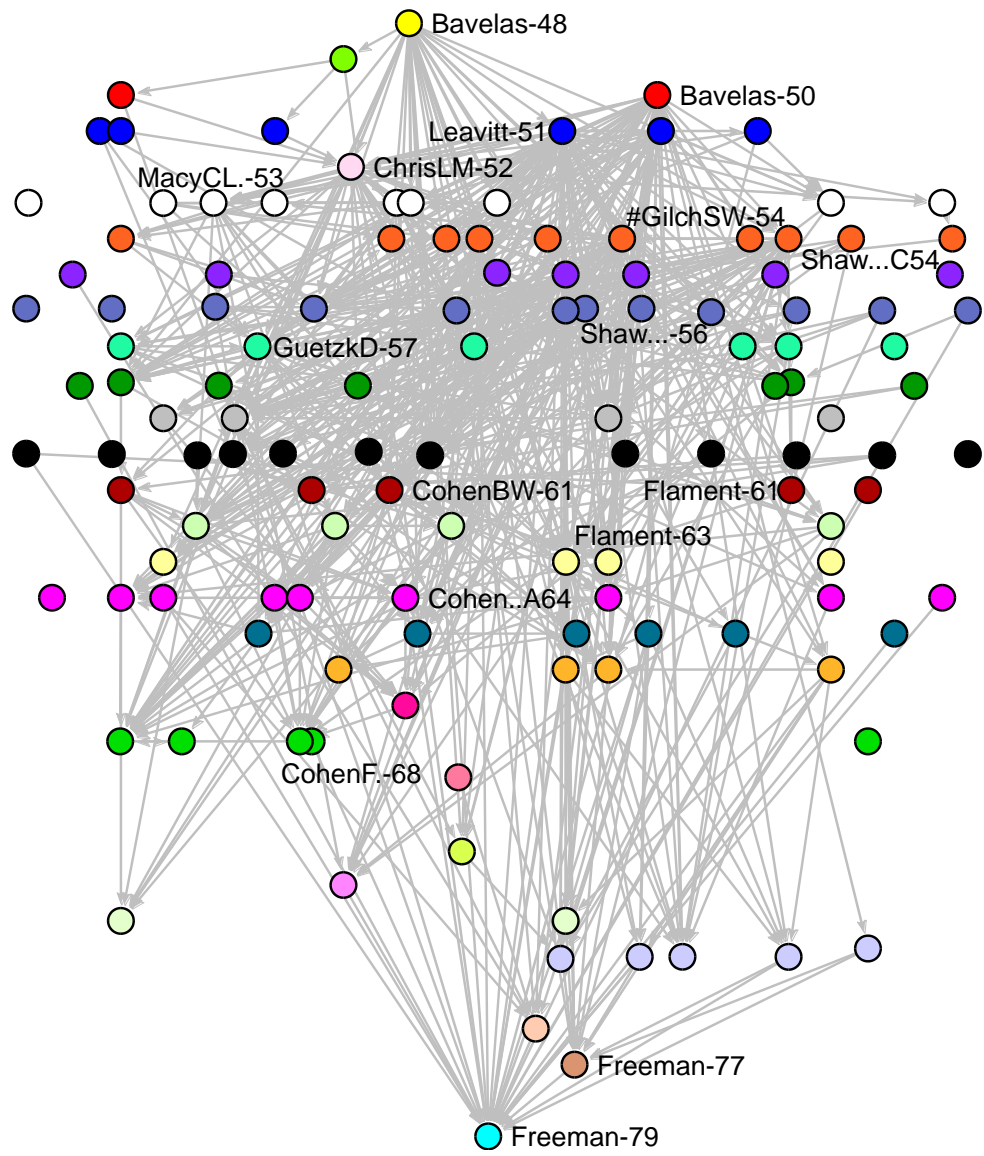


Figure 103 - Centrality literature network in layers according to year of publication.

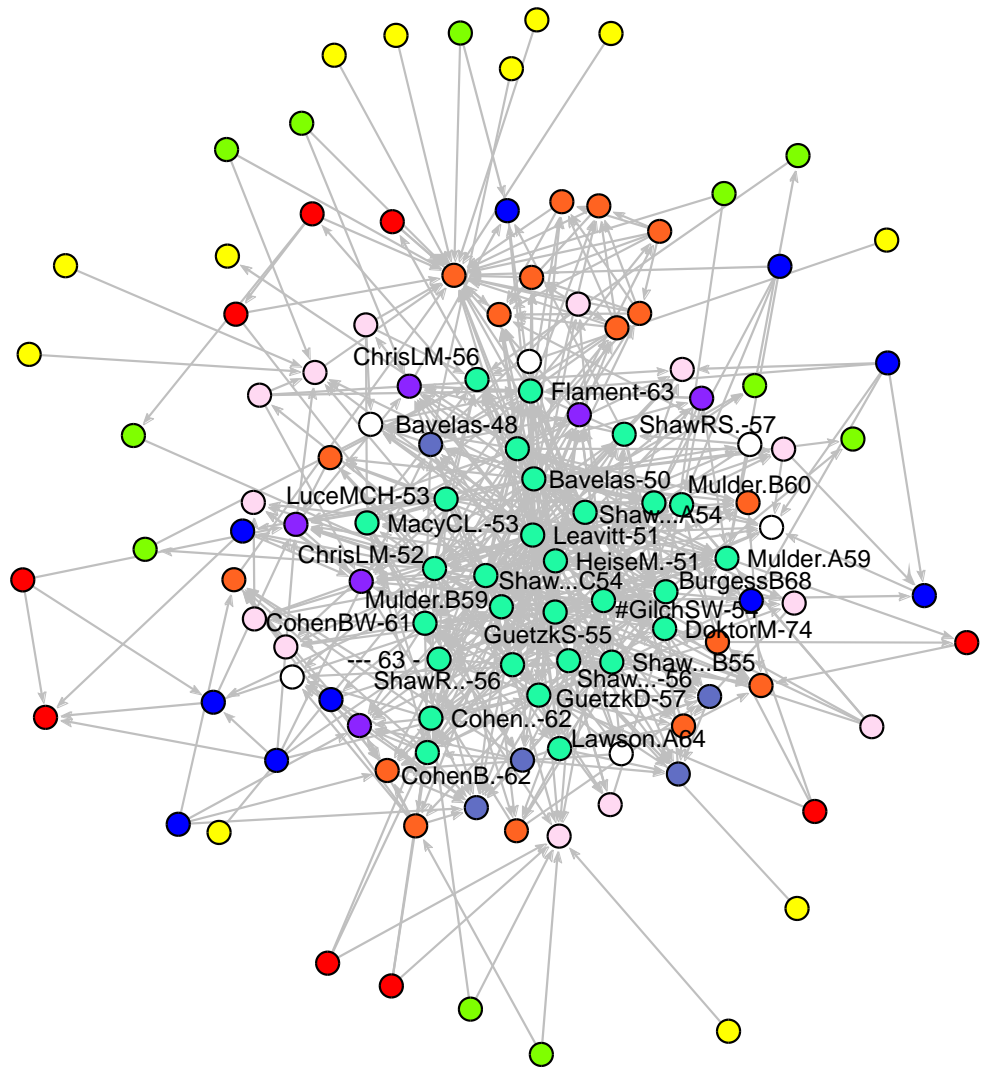
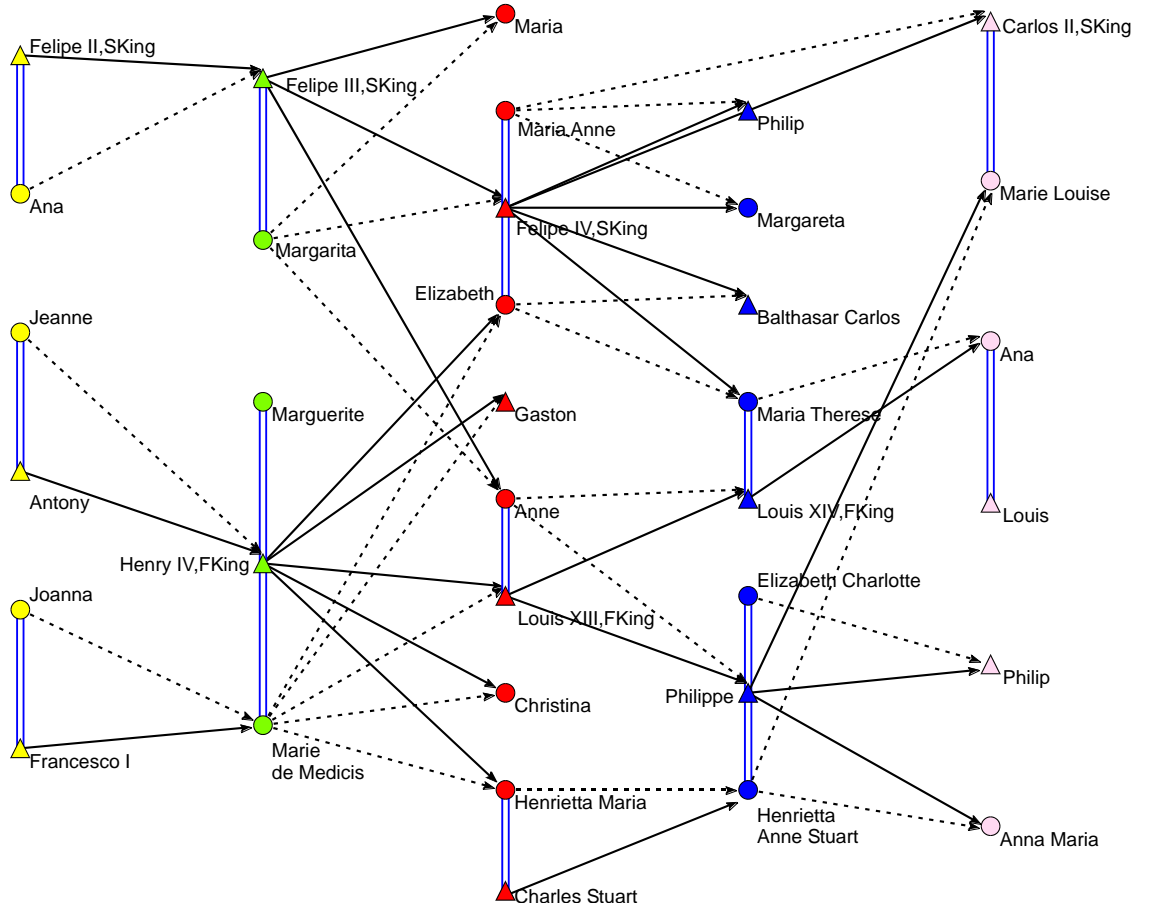


Figure 104 - k -cores in the centrality literature network (without isolates).

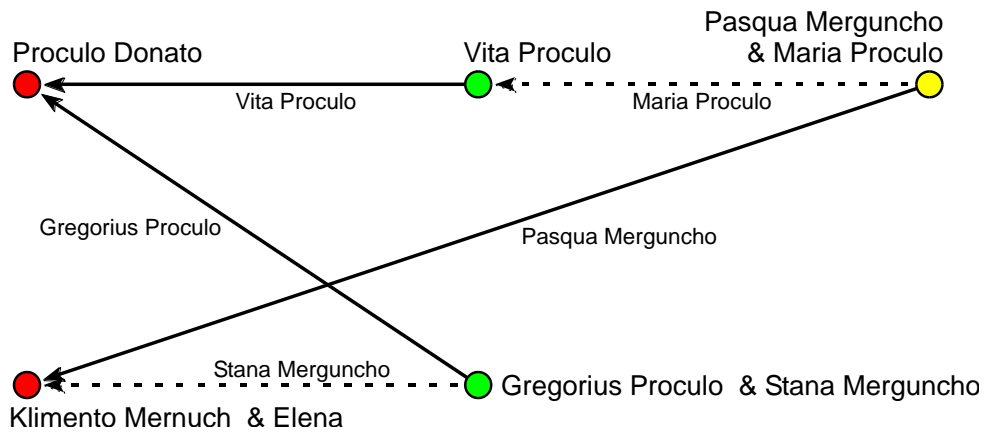
Question 1:



Answer to Exercise I:



Answer to Exercise II:



Appendix 2 - Exporting visualizations

Table 27 - Names of colors in Pajek.

	GreenYellow		Fuchsia		JungleGreen
	Yellow		Lavender		SeaGreen
	Goldenrod		Thistle		Green
	Dandelion		Orchid		ForestGreen
	Apricot		DarkOrchid		PineGreen
	Peach		Purple		LimeGreen
	Melon		Plum		YellowGreen
	YellowOrange		Violet		SpringGreen
	Orange		RoyalPurple		OliveGreen
	BurntOrange		BlueViolet		RawSienna
	Bittersweet		Periwinkle		Sepia
	RedOrange		CadetBlue		Brown
	Mahogany		CornflowerBlue		Tan
	Maroon		MidnightBlue		Gray
	BrickRed		NavyBlue		Black
	Red		RoyalBlue		White
	OrangeRed		Blue		LightYellow
	RubineRed		Cerulean		LightCyan
	WildStrawberry		Cyan		LightMagenta
	Salmon		ProcessBlue		LightPurple
	CarnationPink		SkyBlue		LightGreen
	Magenta		Turquoise		LightOrange
	VioletRed		TealBlue		Canary
	Rhodamine		Aquamarine		LFadedGreen
	Mulberry		BlueGreen		Pink
	RedViolet		Emerald		LSkyBlue
	Gray05		Gray10		Gray15
	Gray20		Gray25		Gray30
	Gray35		Gray40		Gray45
	Gray55		Gray60		Gray65
	Gray70		Gray75		Gray80
	Gray85		Gray90		Gray95

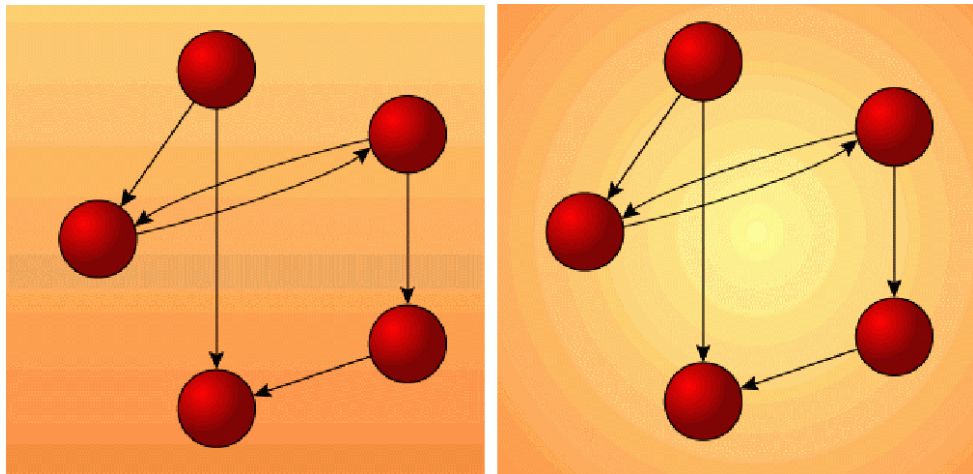


Figure 151 - Gradients in SVG export: linear (left) and radial (right).