

Homework 6: Network Visualization Over Time

How many authors (nodes) and collaborations (edges) are there in the network? Does this change over time?

There were 2255 authors with 8598 collaborations. For the first time slice, there were 921 authors and 2440 collaborations. We see that the number of authors and collaborations do increase over the eight years period and some of them had high number of citations only in the first slice.

How many groups of authors are writing on this topic? Does it change over time? How so?

For the first time slice, there are about 5 groups of authors writing on this topic and yes it does change over time. First change is by the number of groups and second change is new authors start collaborating with the existing groups.

How did you come to this number (e.g. number of components, number of communities)?

I used the Network Analysis Toolkit file to know the numbers.

How connected are authors? Does the diameter or degree distribution for the network change over time?

The authors are connected by the number of collaborations they've done together. Overall, the degree distribution and diameter of the networks do change

How does your selection of temporal periods and slicing affect this analysis?

The selection of the periods affects the degree, density, and diameter of the network, isolated nodes, and number of collaborations of the network.

Who are the most influential author(s) in the network? What are your criteria for this selection?

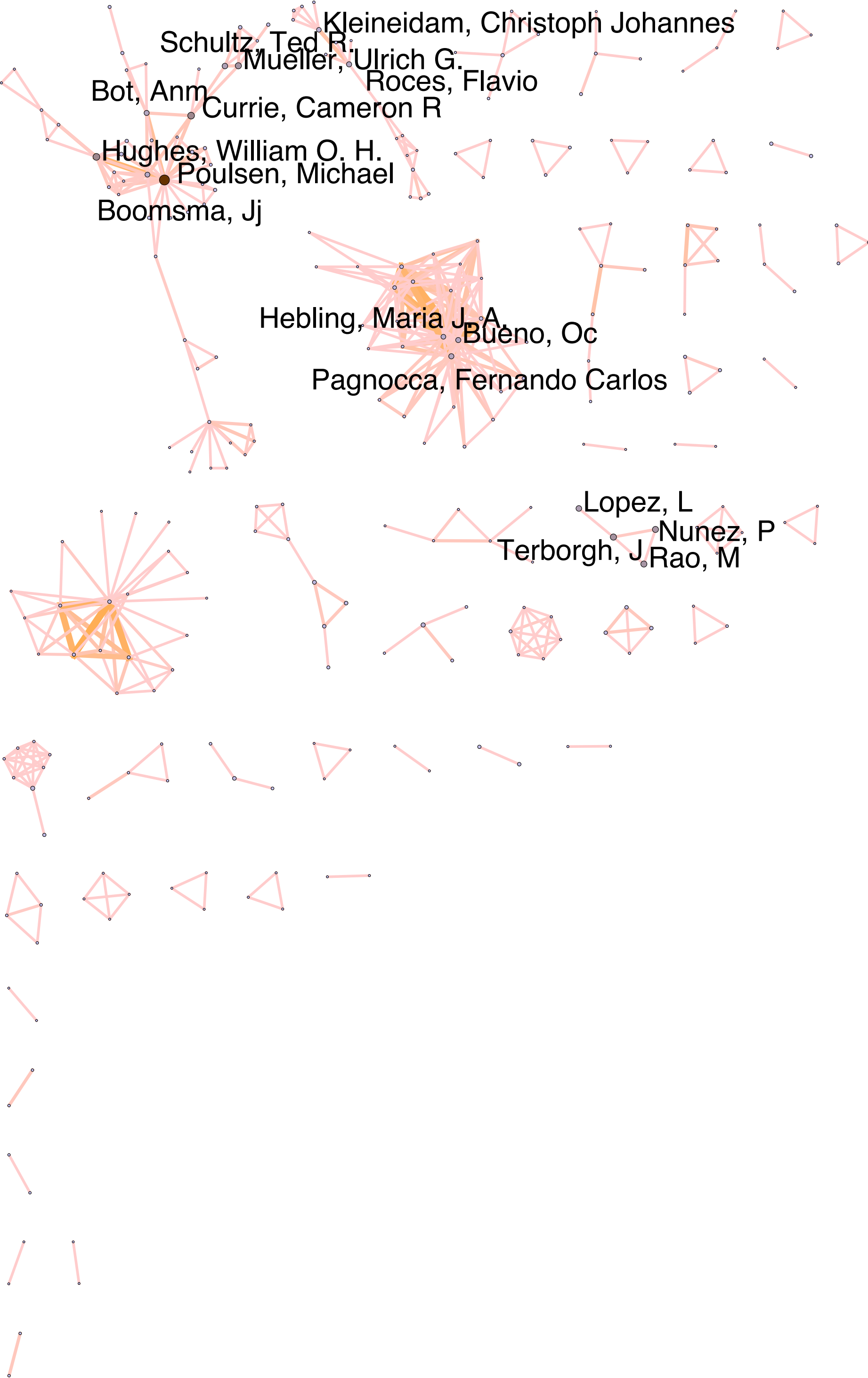
Bot Anm, Hughes William O.H., Boomsma Ji are few of the authors that have been consistent over both the time slices. This is visible through the visualization.

Also, observing the number of citations, I found that Boomsma Ji has the highest cumulative number of citations. While, Boomsma two co-authors remained the same over both the time slices, we observe that there were some new co-authors who met the criteria of more than 400 citations.

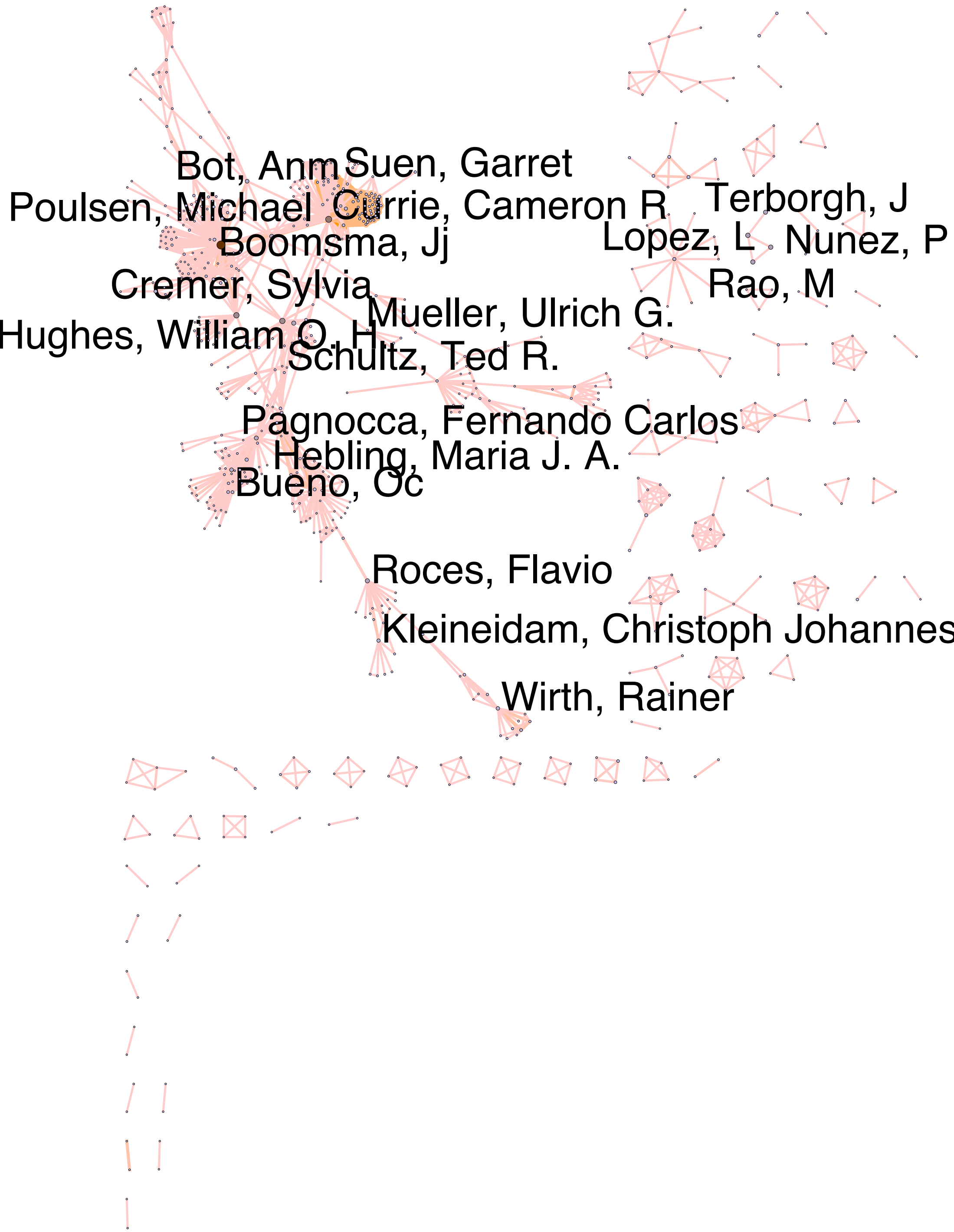
Co-authorship Network of Collaborations between Researchers (2000 - 2016)

Keywords - "Leaf Cutter Ants"
Cumulative Two Time slice of 8 years

2000 to 2008



2000 to 2016



Node Color

Number of Times Cited



Edge Color

Number of Co-authorships



Node Color

Number of Times Cited



Edge Color

Number of Co-authorships

