

## **BW37: Social and Economic Networks**

### **Motivation**

Networks are omnipresent in our lives. They influence how diseases spread, which products we buy, and how we vote. They also determine how robust financial institutions are, how we trade, and what jobs we learn about. This course aims to provide a overview of basic concepts in network theory (types of networks, links, centrality, stability) as well as a more detailed view into selected topics, ranging from network formation over learning to public good provision and financial contagion.

### **Prerequisites**

For some topics, a basic understanding of game theory will be helpful. It will also not hurt if you have seen a matrix before (the mathematical object, not the movie).

### **Examination**

Seminar paper (10-12 pages) and presentation (20-25 minutes plus discussion)

### **Language**

Whereas English is encouraged, students may prepare their paper and/or presentation in German as well.

### **Literature for basic concepts**

Jackson, M. O., 2008, "Social and Economic Networks," Princeton University Press, New Jersey (just Part I).

### **Topics**

Allen, F. and D. Gale (2000). Financial contagion. *Journal of Political Economy* 108(1), 1–33.

Bala, V. and S. Goyal (2000). A noncooperative model of network formation. *Econometrica* 68(5), 1181–1229.

Bramoullé, Y. and R. Kranton (2007). Public goods in networks. *Journal of Economic Theory* 135(1), 478–494.

Caballero, R. J. and A. Simsek (2013). Fire sales in a model of complexity. *The Journal of Finance* 68(6), 2549–2587.

Calvo-Armengol, A. and M. O. Jackson (2004). The effects of social networks on employment and inequality. *American Economic Review* 94(3), 426–454.

DeGroot, M. H. (1974). Reaching a consensus. *Journal of the American Statistical Association* 69(345), 118–121.

Galeotti, A. and S. Goyal (2010). The law of the few. *American Economic Review* 100(4), 1468–92.

Hojman, D. A. and A. Szeidl (2008). Core and periphery in networks. *Journal of Economic Theory* 139(1), 295–309.

Jackson, M. O. and A. Wolinsky (1996). A strategic model of social and economic networks. *Journal of Economic Theory* 71(1), 44–74.

Kinateder, M. and L. P. Merlino (2017). Public goods in endogenous networks. *American Economic Journal: Microeconomics* 9(3), 187–212.

There is going to be a brief overview of the content of this and some other seminars in room S2 of the Oeconomicum on April 22, 12:30-14:00. Attendance is voluntary.

### **Registration**

There seem to be issues with the online registration, so please send me an email including your matriculation number to sign up for the course.

### **Contact**

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Please let me know if you have any questions, comments, or suggestions.