

1153-18-443

Nina Otter* (otter@math.ucla.edu) and **Mason A Porter**. *Of monks, lawyers and villages: new insights in social network science*. Preliminary report.

One of the main concerns in social network science is the study of social positions and roles. By “position” social scientists usually mean a collection of actors who have similar ties to other actors, while a “role” is a specific pattern of ties among actors or positions. An open question in the field was whether it is possible to perform role and positional analysis simultaneously. In joint work with Mason Porter we answer this question in the affirmative by introducing a general framework that relies on category theory. In this talk I will introduce this framework, present three well-studied examples from social network science, and what new insights this general framework gives us. (Received September 03, 2019)