

Department of Mathematics 520 Portola Plaza Box 951555 Los Angeles, CA 90095-1555

2023-03-20

## Statement of Interest in a 0% Appointment in the Department of Sociology

Dear Colleagues,

I am writing to express my enthusiasm for a 0% appointment in the Department of Sociology at UCLA (effective 1 July 2023). I am requesting the Waiver Option.

I am an applied mathematician by training, with a research focus on networks, complex systems, and nonlinear systems. I study many applications, but applications in social sciences are particularly near and dear to my heart. It is important to me to strengthen my sociological connections, and seeking a 0% appointment in the Department of Sociology is a big part of this.

I do research on several topics of relevance to sociology, including faculty in the UCLA Department of Sociology in particular. These topics include the structure of social networks and various processes (e.g., opinion dynamics, information spread, and disease spread) that occur on social networks. I develop both new techniques for data analysis and new mechanistic models, and I like my work on these topics to be informed by domain experts. Put another way, although I produce a variety of scholarship (some more theoretical than others), I want my work to go well beyond things like the "by physicists, for physicists" (where one can also substitute mathematicians, computer scientists, or others) attitude that is often prevalent. Even with my theoretical focus, I want my work to also be of interest to social scientists. Ensuring that my environment is further surrounded by card-carrying sociologists — through seminars, academic discussions, being on thesis committees of PhD students and postdocs — is a way that will grow these aspects of my scholarly life.

Some of my work is also starting to creep more into "social justice" ideas, but there is an enormous gap between (for example) our recent applied-mathematics preprint on resource coverage for voting access and actionable reality. This also applies to my work on social dynamics, etc. In addition to the reasons that I mentioned above, I hope that having a 0% appointment in the Department of Sociology (and everything that that entails) can help some of my work include more steps to bridging that gap.

Thank you very much for considering my appointment. Let me know if you want any further information.

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