Topic Choices for Grad Projects 2024

1. Quantifying the future lethality of terror organizations, Y. Yang, A.R Pah, B. Uzzi, *Proc. the Nat. Acad. of Sci.***16**(43):21463–21468 (2019)

2. The universal decay of collective memory and attention, C. Candia, C. Jara-Figueroa, C. Rodriguez-Sickert, A.-L. Barabási, C. A Hidalgo, *Nat. Hum. Behav.* **3**:82–91 (2019)

3. Quantifying reputation and success in art, S.P. Fraiberger, R. Sinatra, M. Resch, C. Riedl, A.-L. Barabási, *Science,* **362**:825–829 (2018)

4. Experimental evidence for tipping points in social convention, D. Centola, J. Becker, D. Brackbill, A. Baronchelli, *Science*, **360**:1116–1119 (2018)

5. Scientific prize network predicts who pushes the boundaries of science, Y. Ma, B. Uzzi, *Proc. the Nat. Acad. of Sci.,* **115**(50):12608-12615 (2018)

6. Quantifying patterns of research-interest evolution, T. Jia, D. Wang, B.K. Szymanski *Nat. Hum. Behav.* **1**(4):0078, (2017)

7. Quantifying the evolution of individual scientific impact, R. Sinatra, D. Wang, P. Deville, C. Song, A.-L. Barabási, *Science* **354**(6312):5239 (2016)

~~8. Universal resilience patterns in complex networks, Jianxi Gao, Baruch Barzel, Albert-László Barabási,~~ *~~Nature~~* **~~30~~**~~(7590):307 (2016)~~ John Cohen

~~9. Human symptoms–disease network, X.Z. Zhou, J. Menche, A.-L. Barabási, A. Sharma,~~ *~~Nat. Comm.~~* **~~5~~**~~(4212) (2014),~~ Chari Sanjay

10. A network framework of cultural history, M. Schich, C. Song, Y.-Y. Ahn, A. Mirsky, M. Martino, A.-L. Barabási, *Science* **345** (6196):558-562 (2014)

11. Quantifying Long-Term Scientific Impact, D. Wang, C. Song, A.-L. Barabási, *Science* **342** (6154):127-132 (2013)

~~12. A universal model for mobility and migration patterns, F. Simini, M. C. González, A. Maritan, A.-L. Barabási,~~ *~~Nature~~* **~~484~~**~~:96–100 (2012)~~ Yash Kaul

~~13. Controllability of complex networks, Y.-Y. Liu, J.-J. Slotine, A.-L. Barabási~~, *Nature* **473**:167–173 (2011) Lianting Wang

14. Quantifying social group evolution, G. Palla, A.-L. Barabási, T. Vicsek, *Nature* **446**:664–667 (2007)

15. Limits of Human Mobility, C. Song, Z. Qu, N. Blumm, A.-L. Barabási, *Science* **327**(5968):1018-1021 (2010)

16. Understanding individual human mobility patterns, M.C. Gonzalez, C.A. Hidalgo, A.-L. Barabasi, *Nature*, **453** (7196):779—782 (2008)

17. The product space conditions the development of nations, C.A. Hidalgo, B. Klinger, A.-L. Barabási, R. Hausmann, *Science* **317** (5837):482-487 (2007)

~~18. Dynamics of ranking, G. Iniguez, C. Pineda, C. Gershenson, A.-L. Barabási,~~ *~~Nat Comm~~* **~~13~~** ~~(7):1-7 (2022)~~ Tom Song

19. Polarization and tipping points, M.W. Macy, M. Ma, D.R. Tabin, J. Gao, and B.K. Szymanski, *Proc. the Nat. Acad. Of Sci.* **118**(50):e2102144118, (2021);

20. The increasing dominance of teams in production of knowledge, S. Wuchty, B.F. Jones, B. Uzzi, *Science*, **316**(5827):1036-1039 (2007)

21. Polarized information ecosystems can reorganize social networks via information cascades, C.K. Tokita, A.M. Guess, Corina E. Tarnita, *Proc. the Nat. Acad. of Sci.,* **118**(50):e2102147118, (2021)

~~22. Political polarization of news media and influencers on Twitter in the 2016 and 2020 US presidential elections, J. Flamino, et. al., and B.K. Szymanski, Nat. Hum. Behav 7, Mar. 13 (2023),~~ Tiziana Hernande

23. Creation, Evolution, and Dissolution of Social Groups, J. Flamino, B.K. Szymanski, et. al., *Nat.* *Sci. Rep.* **11**:17470, (2021)

24. Human interaction networks reveal that large cities facilitate segregation, H Nilforoshan, et al. J. Leskovec, arXiv:2210.07414v1, Oct. 13 (2022)

~~25. Tracing the chemical relationships between groups of molecules in Mars' meteorites to uncover their evolution, individual topic~~ Elly A. Breves