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## References

1. N. Malod-Dognin, J. Petschnigg and N. Pržulj, *Current Opinion in Systems Biology* **7**, 1 (2018).
2. V. Gligorijević, N. Malod-Dognin and N. Pržulj, *Proteomics* **16**, 741 (2016).
3. S. Liu, F. Vahedian, D. Hachen, O. Lizardo, C. Poellabauer, A. Striegel and T. Milenković, *arXiv preprint arXiv:1906.04346* (2019).
4. C. A. Latkin and A. R. Knowlton, *Behavioral Medicine* **41**, 90 (2015).
5. J. M. Perkins, S. Subramanian and N. A. Christakis, *Social Science & Medicine* **125**, 60 (2015).
6. R. Pastor-Satorras, C. Castellano, P. Van Mieghem and A. Vespignani, *Reviews of Modern Physics* **87**, p. 925 (2015).
7. T. W. Valente and S. R. Pitts, *Annual Review of Public Health* **38**, 103 (2017).
8. N. K. Cobb, A. L. Graham and D. B. Abrams, *American Journal of Public Health* **100**, 1282 (2010).
9. N. A. Christakis and J. H. Fowler, *New England Journal of Medicine* **2007**, 370 (2007).
10. N. A. Christakis and J. H. Fowler, *New England Journal of Medicine* **358**, 2249 (2008).
11. J. N. Rosenquist, J. H. Fowler and N. A. Christakis, *Molecular Psychiatry* **16**, p. 273 (2011).
12. Y. Youm, E. O. Laumann, K. F. Ferraro, L. J. Waite, H. C. Kim, Y.-R. Park, S. H. Chu, W.-T. Joo and J. A. Lee, *BMC Geriatrics* **14**, p. 102 (2014).
13. S. Liu, D. Hachen, O. Lizardo, C. Poellabauer, A. Striegel and T. Milenković, *Applied Network Science* **3**, p. 45 (2018).
14. S. Lin, L. Faust, P. Robles-Granda, T. Kajdanowicz and N. V. Chawla, *PLOS ONE* **14**, p. e0217264 (2019).
15. M. H. Schafer, *Journals of Gerontology Series B: Psychological Sciences and Social Sciences* **66**, 795 (2011).
16. S. A. Haas, D. R. Schaefer and O. Kornienko, *Journal of Health and Social Behavior* **51**, 424 (2010).
17. L. Meng, Y. Hulovatyy, A. Striegel and T. Milenković, *IEEE Transactions on Network Science and Engineering* **3**, 32 (2016).
18. M. Berk, A. Brnabic, S. Dodd, K. Kelin, M. Tohen, G. S. Malhi, L. Berk, P. Conus and P. D. McGorry, *Bipolar Disorders* **13**, 87 (2011).
19. M. M. Aldarwish and H. F. Ahmad, in *IEEE 13th International Symposium on Autonomous Decentralized System*, 2017.
20. P. D. McGorry, *Journal of Nervous and Mental Disease* **203**, p. 310 (2015).
21. D. C. Mohr, M. Zhang and S. M. Schueller, *Annual Review of Clinical Psychology* **13**, 23 (2017).
22. T. Glenn and S. Monteith, *Current Psychiatry Reports* **16**, p. 523 (2014).
23. S. C. Guntuku, D. B. Yaden, M. L. Kern, L. H. Ungar and J. C. Eichstaedt, *Current Opinion in Behavioral Sciences* **18**, 43 (2017).
24. A. Bogomolov, B. Lepri, M. Ferron, F. Pianesi and A. S. Pentland, in *ACM International Conference on Multimedia*, 2014.
25. A. Wongkoblap, M. A. Vellido and V. Curcin, *Journal of Medical Internet Research* **19** (2017).
26. M. De Choudhury, M. Gamon, S. Counts and E. Horvitz, *Seventh International AAAI Conference on Weblogs and Social Media* **13**, 1 (2013).
27. X. Wang, C. Zhang and L. Sun, in *2013 IEEE 13th International Conference on Data Mining Workshops*, 2013.
28. R. Purta, S. Mattingly, L. Song, O. Lizardo, D. Hachen, C. Poellabauer and A. Striegel, in *ACM International Symposium on Wearable Computers*, 2016.
29. L. Faust, R. Purta, D. Hachen, A. Striegel, C. Poellabauer, O. Lizardo and N. V. Chawla, in *International Workshop on Social Sensing*, 2017.
30. Y. Koren, in *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, 2009.
31. A. Sano, A. J. Phillips, Z. Y. Amy, A. W. McHill, S. Taylor, N. Jaques, C. A. Czeisler, E. B. Klerman and R. W. Picard, in *IEEE 12th International Conference on Wearable and Implantable Body Sensor Networks*, 2015.
32. J. Bollen, B. Gonçalves, G. Ruan and H. Mao, *Artificial Life* **17**, 237 (2011).
33. M. L. Hatzenbuehler, K. A. McLaughlin and Z. Xuan, *Social Science & Medicine* **75**, 1184 (2012).
34. J. Krause, R. James and D. Croft, *Philosophical Transactions of the Royal Society B: Biological Sciences* **365**, 4099 (2010).
35. D. R. Schaefer, O. Kornienko and A. M. Fox, *American Sociological Review* **76**, 764 (2011).
36. J. Staiano, B. Lepri, N. Aharony, F. Pianesi, N. Sebe and A. Pentland, in *ACM Conference on Ubiquitous Computing*, 2012.
37. F. E. Faisal and T. Milenković, *Bioinformatics* **30**, 1721 (2014).
38. D. Aparício, P. Ribeiro and F. Silva, *PLOS ONE* **13**, p. e0205497 (2018).
39. T. Milenković and N. Pržulj, *Cancer Informatics* **6**, CIN (2008).
40. Y. Hulovatyy, H. Chen and T. Milenković, *Bioinformatics* **31**, i171 (2015).
41. T. Milenković, V. Memišević, A. Bonato and N. Pržulj, *PLOS ONE* **6**, p. e23016 (2011).
42. W. S. Noble, *Nature Biotechnology* **27**, p. 1135 (2009).
43. H. Abdi, *Encyclopedia of Research Design* **1**, 169 (2010).
44. N. Pržulj, D. G. Corneil and I. Jurisica, *Bioinformatics* **20**, 3508 (2004).
45. D. Aparício, P. Ribeiro, T. Milenković and F. Silva, *Bioinformatics*, doi: 10.1093/bioinformatics/btz119 (2019).
46. L. R. Drumond, E. Diaz-Aviles, L. Schmidt-Thieme and W. Nejdl, in *ACM International Conference on Conference on Information and Knowledge Management*, 2014.
47. F. M. Alpass and S. Neville, *Aging & Mental Health* **7**, 212 (2003).
48. L. K. George, D. G. Blazer, D. C. Hughes and N. Fowler, *British Journal of Psychiatry* **154**, 478 (1989).
49. T. Hocevar and J. Demsar, *Bioinformatics* **30**, 559 (2014).
50. M. Rahman, M. A. Bhuiyan and M. A. Hasan, *IEEE Transactions on Knowledge and Data Engineering* **26**, 2466 (2014).