CURRICULUM VITAE

Nannan Wang

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EDUCATION

2005 - 2009
   B.S. in Applied Mathematics
   Ocean University of China, Qingdao, China
2009 - 2011
   Completed 38 credits towards a M.S. in Applied Mathematics (Successive
     Master-Doctoral Program)
   Ocean University of China, China
2011 - 2015
   Ph.D. in Harbor, Coastal and Offshore Engineering
   Ocean University of China, Qingdao, China

RESEARCH EXPERIENCE

2023 - now: Human Genetics Center, Department of Epidemiology, School of Public
Health, The University of Texas Health Science Center at Houston
   - Faculty Associate
   - Statistical genetics and genomics
2020 - 2023: Human Genetics Center, Department of Epidemiology, School of Public
Health, The University of Texas Health Science Center at Houston
   - Programmer/Analyst
   - Statistical genetics and genomics
2018 - 2019: Xiamen University, China
   - Research Scientist, in Dr. Nianzhi Jiao's group
   - Ecological statistics and ecosystem model
2015 - 2018: Xiamen University, China
   - Postdoctoral research fellow, in Dr. Nianzhi Jiao's group
   - Ecological statistics and ecosystem model
2013 - 2014: JISAO/University of Washington & NOAA/PMEL/NCTR, USA
   - Visiting Student, Advisor: Dr. Vasily Titov and Dr. Liujuan Tang
   - Tsunami numerical model and wave characteristics statistics

PUBLICATIONS

Wang N, Yu B, Jun G, Qi Q, Durazo-Arvizu RA, Lindstrom S, Morrison AC, Kaplan RC, Boerwinkle E, Chen H. (2023). StocSum: stochastic summary statistics for whole genome sequencing studies. bioRxiv [Preprint]. 2023 Apr 7:2023.04.06.535886. doi: 10.1101/2023.04.06.535886. PMID: 37066281; PMCID: PMC10104122.

Wang N, Ockerman FP, Zhou LY, Grove ML, Alkis T, Barnard J, Bowler RP, Clish CB, Chung S, Drzymalla E, Evans AM, Franceschini N, Gerszten RE, Gillman MG, Hutton SR, Kelly RS, Kooperberg C, Larson MG, Lasky-Su J, Meyers DA, Woodruff PG, Reiner AP, Rich SS, Rotter JI, Silverman EK, Ramachandran VS, Weiss ST, Wong KE, Wood AC, Wu L; NHLBI Trans-Omics for Precision Medicine (TOPMed) Consortium; Yarden R, Blackwell TW, Smith AV, Chen H, Raffield LM, Yu B. (2024) Genetic Architecture and Analysis Practices of Circulating Metabolites in the NHLBI Trans-Omics for Precision Medicine (TOPMed) Program. bioRxiv [Preprint]. 2024 Aug 26:2024.07.23.604849. doi: 10.1101/2024.07.23.604849. PMID: 39211135; PMCID: PMC11361093.

Wei, W., **Wang, N.**, Cai, L., Zhang, C., Jiao, N., & Zhang, R. (2019). Impacts of freshwater and seawater mixing on the production and decay of virioplankton in a subtropical estuary. Microbial Ecology, 1-12.*

Wang, N., Luo, Y., Polimene, L., Zhang, R., Zheng, Q., Cai, R., & Jiao, N. (2018). Contribution of structural recalcitrance to the formation of the deep oceanic dissolved organic carbon reservoir. Environmental microbiology reports, 10(6), 711-717.*

Jiao, N., Liang, Y., Zhang, Y., Liu, J., Zhang, Y., Zhang, R., Zhao, M., Dai, M.,, Zhai, W., Gao, K., Song, J., Yuan, D., Li, C., Lin, G., Huang, X., Yan, H., Hu, L., Zhang, Z., Wang, L., Cao, C., Luo, Y., Luo, T., **Wang, N.**, Dang, H., Wang, X., & Zhang, S. (2018). Carbon pools and fluxes in the China Seas and adjacent oceans. Science China Earth Sciences, 61(11), 1535-1563.*

Wang, N., & Sheng, D. (2018). Statistic Analysis of Offshore Tsunami Amplitude along China Mainland Coasts. Periodical of Ocean University of China, 1, 111-116 (in Chinese).*

Polimene, L., Rivkin, R. B., Luo, Y., Kwon, E. Y., Gehlen, M., Peña, M. A., **Wang, N.**, Liang, Y., Kaartokallio, H., & Jiao, N. (2018). Modelling marine DOC degradation time scales. National Science Review. DOI: 10.1093/nsr/nwy066.*

Xu, Y., Zhang, R., **Wang, N.**, Cai, L., Sun, Q., Chen, F., & Jiao, N. (2018). Novel phage-host interactions and evolution as revealed by a cyanomyovirus isolated from an estuarine environment. Environmental Microbiology, 20(8), 2974-2989.*

Liang, Y., Zhang, Y., **Wang, N.**, Luo, T., Zhang, Y., & Rivkin, R. B. (2017). Estimating primary production of picophytoplankton using the carbon-based ocean productivity model: a preliminary study. Frontiers in Microbiology, 8, 1926.*

Dong, S., **Wang, N.**, Lu, H., & Tang, L. (2015). Bivariate distributions of group height and length for ocean waves using copula methods. Coastal Engineering, 96, 49-61.*

Dong, S., **Wang, N.**, Liu, W., & Soares, C. G. (2013). Bivariate maximum entropy distribution of significant wave height and peak period. Ocean Engineering, 59(1), 86-99.*

Tao, S., Dong, S., **Wang, N.**, & Soares, C. G. (2013). Estimating storm surge intensity with Poisson bivariate maximum entropy distributions based on copulas. Natural Hazards, 68(2), 791-807.*

Dou, J., Zhao, X., Fu, X., Jiao, W., **Wang, N.**, Zhang, L., Hu, X., Wang, S., & Bao, Z. (2012). Reference-free SNP calling: improved accuracy by preventing incorrect calls from repetitive genomic regions. Biology direct, 7(1), 1-9.*

* No NIH funding.

SKILLS

R, Python, Matlab, Fortran, Unix/Linux, Cloud Computing, Parallel Computing

PROFESSIONAL DEVELOPMENT

- Statistics for Genomic Data Science (Johns Hopkins University, Coursera.org)
- Command Line Tools for Genomic Data Science (Johns Hopkins University, Coursera.org)
- Bioinformatics: Introduction and Methods (Peking University, Coursera.org)
- Biology Meets Programming: Bioinformatics for Beginners (University of California San Diego, Coursera.org).
- Machine Learning (Stanford University, Coursera.org)

CONFERENCE AND PRESENTATIONS

- TOPMed 2024 Annual Meeting, Bethesda, Maryland, US, Feb 2024. (Presentation)
- Gordon Research Conference on Ocean Biogeochemistry 2016, Hong Kong University of Science and Technology, Hong Kong, China, June 2016. (Poster)
- Hot Topics Workshop 'Impact of Waves A long Coastlines', Institute for Mathematics and its Applications, University of Minnesota, Minnesota, USA, October 2014.
- Nannan Wang, Liujuan Tang, Vasily Titov et al., Global Tsunami Propagation Database and Tsunami Current Forecasts. *Asia Oceania Geosciences Society (AOGS) 11th Annual Meeting*, Sapporo, Japan, July 2014. (Presentation)
- Nannan Wang, Liujuan Tang, Vasily Titov, et al., Developing a global tsunami propagation database and its application for coastal hazard assessments in China. . *American Geophysical Union Fall Meeting 2013*, San Francisco, USA, December 2014. (Poster)

TEACHING EXPERIENCE

Sep 2009- Sep 2012: Class tutor and assistant for Probability and Statistics.

HONORS and AWARDS

2013 – 2014: Supported by China Scholarship Council (CSC) to be a visiting student at University of Washington & NOAA/PMEL/NCTR

2013: National scholarship for graduate students

2013: First Grade Scholarship of Ocean University of China (OUC)

2012: Second Grade Scholarship of Ocean University of China (OUC)

2010: Third prize in National Post-Graduate Mathematic Contest in Modeling (GMCM) in China

2010: The Outstanding Student of Ocean University of China (OUC)

2007: First prize in China undergraduate mathematical contest in modeling (CUMCM) organized by China Society for Industrial and Applied Mathematics (CSIAM)

2005 – 2009: The Third Prize Scholarship (2 times)