

ARJUN BIDDANDA

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RESEARCH INTERESTS

Population Genomics, Statistical Genetics, Medical Genetics, Ancient DNA

EMPLOYMENT

2021 - Postdoctoral Research Associate · Department of Statistics · University of Oxford
Advisor: Pier Palamara

EDUCATION

2015 - 2020 PhD · Human Genetics · University of Chicago
Dissertation Title: Investigating the spatio-temporal structure of human genetic diversity
Advisor: John Novembre

2011 - 2015 BS.Eng · Computer Science (Cum Laude) · Cornell University
Advisor: Alon Keinan

PUBLICATIONS

* - indicates equal contribution

Arjun Biddanda, Daniel P. Rice, and John Novembre. Geographic patterns of human allele frequency variation: a variant-centric perspective. *eLife*, 2020.

Charleston W K Chiang, Joseph H Marcus, Carlo Sidore, Arjun Biddanda, Hussein Al-Asadi, Magdalena Zoledziewska, Maristella Pitzalis, Fabio Busonero, Andrea Maschio, Giorgio Pistis, Maristella Steri, Andrea Angius, Kirk E Lohmueller, Goncalo R Abecasis, David Schlessinger, Francesco Cucca, and John Novembre. Genomic history of the Sardinian population. *Nature Genetics*, 2018.

Peter de Barros Damgaard, Rui Martiniano, Jack Kamm, J Víctor Moreno-Mayar, ..., Arjun Biddanda, ..., Martin Sikora, Alan K Outram, Richard Durbin, and Eske Willerslev. The first horse herders and the impact of early Bronze Age steppe expansions into Asia. *Science*, 2018.

Yedaël Y Waldman*, Arjun Biddanda*, Natalie R Davidson, Paul Billing-Ross, Maya Dubrovsky, Christopher L Campbell, Carole Oddoux, Eitan Friedman, Gil Atzmon, Eran Halperin, and Others. The genetics of Bene Israel from India reveals both substantial Jewish and Indian ancestry. *PLoS One*, 11(3):e0152056, 2016.

Yedaël Y Waldman, Arjun Biddanda, Maya Dubrovsky, Christopher L Campbell, Carole Oddoux, Eitan Friedman, Gil Atzmon, Eran Halperin, Harry Ostrer, and Alon Keinan. The genetic history of Cochin Jews from India. *Human Genetics*, pages 1–17, 2016.

Feng Gao*, Diana Chang*, Arjun Biddanda*, Li Ma, Yingjie Guo, Zilu Zhou, and Alon Keinan. XWAS: a software toolset for genetic data analysis and association studies of the X chromosome. *Journal of Heredity*, 106(5):666–671, 2015.

PRESENTATIONS

Arjun Biddanda, Matthias Steinrücken, and John Novembre. Properties of two-locus genealogies and linkage disequilibrium in temporally stratified samples. *Probabilistic Models in Genomics* (Poster), 2021.

Arjun Biddanda, Matthias Steinrücken, and John Novembre. Linkage Disequilibrium in Ancient DNA: Theory and Applications. *American Society of Human Genetics* (Poster), 2019.

Arjun Biddanda, Matthias Steinrücken, and John Novembre. Linkage Disequilibrium in Ancient DNA: Theory and Applications. *Midwest Population Genetics* (Talk), 2019.

Arjun Biddanda and John Novembre. Inference and visualization of the geographic distribution for variant sets. American Society of Human Genetics (Poster), 2018.

HONORS / AWARDS

2020	Presidential Membership Genetics Society of America
2019	Reviewer's Choice Abstract American Society of Human Genetics
2017	Honorable Mention NSF Graduate Research Fellowship
2015-2018	NIH Genetics and Regulation Training Grant University of Chicago
2013 - 2015	Dean's List Cornell University College of Engineering

TEACHING EXPERIENCE

Winter 2019	Guest Lecturer, University of Chicago Computing Skills for Biologists
Winter 2018	Teaching Assistant, University of Chicago HG 486: Fundamentals of Computational Biology
Summer 2017	Course Assistant, University of Chicago Marine Biological Laboratory - Quantitative Approaches to Biology Bootcamp
Spring 2017	Teaching Assistant, University of Chicago HG 469: Human Variation and Disease
2016 - 2018	Tutor, University of Chicago Introduction to Statistics for Geneticists
2016 - present	Instructor, Software Carpentry
2013 - 2015	Teaching Assistant, Cornell University CS 3110 : Functional Programming and Data Structures

INDUSTRY EXPERIENCE

2013	Software Engineering Intern Guidewire Software
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SERVICE

Summer 2020	Organizer Genetics and Society Reading Group (Departmental Group)
2019-2020	Novembre - He - Stephens (NHS) Meeting Coordinator University of Chicago
2019 - 2020	Tutor Tutoring Chicago
2019 -	Peer Review eLife, Molecular Biology and Evolution, Genes

MENTORSHIP

2020 - present	Achyutha Menon (U. Chicago Undergraduate) Project: Efficient storage and visualization of linkage disequilibrium across human populations Sponsored by a College Summer Research Fellowship
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COMPUTATIONAL SKILLS

Python, Bash, R, OCaml, C++ , Java
Git, L^AT_EX, Microsoft Office

SOCIETY MEMBERSHIPS

2018 - American Society of Human Genetics (ASHG)
2021 - Genetics Society of America (GSA)