

ARJUN BIDDANDA

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Department of Human Genetics
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Updated Dec 21st, 2020

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, Matthias Steinrücken, and John Novembre. Properties of Two-Locus Genealogies and Linkage Disequilibrium in Temporally Structured Samples. *in prep*, 2021.

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.

Yedael 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.

Yedael 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 Cochui 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. *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

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

TEACHING EXPERIENCE

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

INDUSTRY EXPERIENCE

2013	Software Engineering Intern <i>Guidewire Software</i>
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SERVICE

Summer 2020	Organizer <i>Genetics and Society Reading Group (Departmental Group)</i>
2019-2020	Novembre - He - Stephens (NHS) Meeting Coordinator <i>University of Chicago</i>
2019 - 2020	Tutor <i>Tutoring Chicago</i>

MENTORSHIP

2020 - present	Achyutha Menon (<i>U. Chicago Undergraduate</i>) <i>Project: Efficient storage and visualization of linkage disequilibrium across human populations</i> Sponsored by a competitive 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)