

Christian Beronilla Pascual

Division of Biostatistics and Bioinformatics

Herbert Wertheim School of Public Health and Human Longevity Science

Personal Sites: cbpascual.com

verynormal.substack.com

Education

- 09/2020 - Present **PhD, Biostatistics**
University of California, San Diego, CA
Anticipated graduation: June 2025
- 09/2018 - 05/2020 **MS, Biostatistics**
Columbia University, NY
- 09/2011 - 05/2015 **BS, Biomedical Engineering**
University of California, Davis, CA

Research Experience

- 08/2020 - Present Graduate Research Assistant (Prof. Sonia Jain)
- Designing new Bayesian design for N-of-1 context with platform trial elements to enable better personalization of treatment
 - Explored use of mixed-effects Bayesian networks to N-of-1 trials
- 05/2022 - 08/2022 Visiting Scholar, Northwell Health: Institute of Health System Science
- Discovered clusters of physical behavior patterns via data measured by Fitbit
- 01/2022 - 03/2022 Graduate Research Assistant (Prof. Loki Natarajan)
- Examining the pattern of sedentary behavior for an ongoing clinical trial using functional data analysis
- 01/2019 - 08/2020 Graduate Research Assistant (Prof. Jeff Goldsmith)
- Converted a novel statistical method for performing nonparametric inference on wearable device data into an R package

Teaching Experience

- 09/2022 - present Teaching Assistant: FMPH 224 (Clinical Trials)
- 03/2022 - 06/2022 Teaching Assistant: FMPH 224 (Clinical Trials)
- 09/2021 - 12/2021 Teaching Assistant: FMPH244A (Foundations In Biostatistics I)
- 07/2021 - 07/2022 Department Tutor for Mathematical Statistics Qualifying Exam
- 08/2019 - 12/2019 Teaching Assistant: P8105 (Data Science I)

Presentations

- “Identifying Individual Goal Achievement Behavior Using Bayesian Networks”. **ICHPS 2023**, *invited*.
- “Identifying Individual Goal Achievement Behavior Using Bayesian Networks”. **SCT 2021** (remote), *invited*.

- “Modeling Individual Goal Achievement Using Bayesian Networks”. **WNAR 2021** (remote), *invited*.

Software

- **mane**: an R package for simulating Platform-of-1 designs, available on Github
- **ActivityProfileR**: a functional ANOVA test for physical activity data, available on Github.
- **DsCovR Dashboard**: an interactive Shiny app to track state-level demographic trends for COVID-19. Shiny application in R

Honors

09/2020 - Present	Cota-Robles Fellow, University of California San Diego
09/2020 - Present	Katzin Scholar, University of California San Diego
04/2021	Society for Clinical Trials, Special Student Award

Professional Memberships

- American Statistical Association (ASA)

Publications

1. Duran AT, **Pascual CB**, Goldsmith J, Howard VJ, Hutto B, Colabianchi N, Vena JE, McDonnell MN, Blair SN, Hooker SP, Diaz KM. Objectively Measured Physical Activity and Sedentary Time Among Adults With and Without Stroke: A National Cohort Study. *Stroke*. 2021 Nov;52(11):e729-e732. doi: 10.1161/STROKEAHA.121.034194. Epub 2021 Sep 27. PMID: 34565173.
 2. Friel CP, **Pascual CB**, Duran AT, Goldsmith J, Diaz KM. Joint associations of occupational standing and occupational exertion with musculoskeletal symptoms in a US national sample. *Occup Environ Med*. 2020 Dec 30:oemed-2020-106911. doi: 10.1136/oemed-2020-106911. Epub ahead of print. PMID: 33380515; PMCID: PMC8243382.
- **Pascual CB**, Hekler E, Jain S. Platform-of-1: A Bayesian Bandit N-of-1 Design For Personalizing Individual Treatment Among Multiple Candidates. *Manuscript in progress*.
 - **Pascual CB**, Hekler E, Jain S. Bayesian networks and N-of-1 trials. *Statistics in Medicine*. *Manuscript in progress*.
 - Hilden P, Schwartz JE, **Pascual CB**, Diaz K, Goldsmith J (2021). How Many Days are Needed? Measurement Reliability of Wearable Device Data. *Medicine and Science in Sports and Exercise*. *Manuscript submitted*.