# Daniel Andrés Díaz-Pachón

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### **Education**

Biola University

M.A. New Testament

Universidade de São Paulo

Ph.D. Probability

Universidad Nacional de Colombia

B.S. Statistics (Minors: Mathematics, Biostatistics)

La Mirada, California

2021–

São Paulo, Brasil

2005–2009

Bogotá, Colombia

Facultad de Teología y Estudios Religiosos

Bogotá, Colombia

1999–2005

### Experience

Academic
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Research Assistant Professor

Division of Biostatistics - University of Miami

Postdoctoral Research Associate

Division of Biostatistics - University of Miami

Teaching Assistant

Instituto de Matemática e Estatística - Universidade de São Paulo

Lecturer in Statistics

Miami, Florida

2015–2021

Miami, Florida

2011–2015

São Paulo, Brasil

2007–2007

Bogotá, Colombia

Instituto Politécnico Grancolombiano 2004
Industry.

Risk Analyst Bogotá, Colombia
ACCION International 2008

Consultant Bogotá, Colombia

Universidad Nacional de Colombia 2003

#### **Edition** and translation...

#### Book translator and editor

Freelance 2004–2013

More than 30 books translated or edited from English to Spanish for 3 different Publishing Houses (Vida Zondervan, Portavoz, and CLIE).

### Languages

Spanish: Native
English: Fluent
Portuguese: Fluent
Italian: Basic

Greek: Basic

### **Certifications**

- Curso anual de novela. Annual course on creative writing. Escuela Cursiva.
- Taller de poesía con Carlos Pardo. Four-months poetry course. Escuela Cursiva.

#### **Interests**

Creative writing and poetry.

Crossfit.

# Talks and presentations

Active Information and some applications.

Colloquium, Department of Mathematics, Florida International University.

Miami, Fl, USA. October 24th, 2019.

Allocations: Some results and some open problems.

Probability Workshops, Department of Statistics, Oxford University.

Oxford, England. June 13, 2016.

On the explanatory power of Principal Components.

XIII Latin American Congress of Probability and Statistics (CLAPEM).

Cartagena, Colombia. September 25, 2014.

Principal Components Analysis and Bump Hunting using PRIM.

Biostatistics Seminar, Biostatistics Division, University of Miami.

Miami, Fl, USA. September 14, 2013.

Optimization of PRIM under normality. Sco 2013. Politecnico di Milano. Milan, Italy. September 10, 2013.

Optimization of PRIM under normality. Joint Statistical Meetings. Montreal, Canada. August 5, 2013.

Allocations: What they are and some open problems.

Graduate Seminar, Department of Mathematics, University of Miami.

Miami, Fl, USA. March 30, 2012.

Grandes desvíos en el matrimonio estable de Poisson y Lebesgue con apetitos aleatorios. Statistics Seminar, Statistics Department, Universidad del Valle. Cali, Colombia. May 10, 2011.

Large deviations for the stable marriage of Poisson and Lebesgue with random appetites. Stochastic Processes Seminar, Mathematics Department, Universidad de los Andes. Bogotá, Colombia. September 22, 2010.

Tail bounds for the stable marriage of Poisson and Lebesgue with random appetites. Seminar of theory and methods, Statistics Department, Universidad Nacional de Colombia. Bogotá, Colombia. September 6, 2010.

Some properties of allocations with random appetites (Poster). 13th Brazilian Probability School. Maresias, SP, Brazil. August 2–8, 2009.

Percolación para asignaciones estables con apetitos aleatorios. Stochastic Processes Workshop, Mathematics Department, Universidad de los Andes. Bogotá, Colombia. April 9, 2008.

Percolación para el matrimonio estable de Poisson y Lebesgue con apetitos aleatorios. Seminar of theory and methods, Statistics Department, Universidad Nacional de Colombia. Bogotá, Colombia. March 30, 2008.

Hipótesis lineales sobre medias para experimentos de franjas en parcelas divididas. IX Latin American Congress of Probability and Statistics (CLAPEM). Punta del Este, Uruguay. March 22–26, 2004.

#### **Publications**

### Journal articles

- 10. **Daniel Andrés Díaz-Pachón**, Ola Hössjer, and Robert J. Marks II. Is cosmological tuning fine or coarse? *Under review*, 2021. Preprint.
- 9. Tianhao Liu, **Daniel Andrés Díaz-Pachón**, J. Sunil Rao, and Jean-Eudes Dazard. Mode hunting using pettiest component analysis. *Under review*, 2021. Preprint.
- 8. **Daniel Andrés Díaz-Pachón** and J. Sunil Rao. A simple correction for COVID-19 sampling bias. *J Theor Biol*, 512:110556, 2021. Preprint.
- 7. **Daniel Andrés Díaz-Pachón** and Robert J. Marks II. Active Information Requirements for Fixation on the Wright-Fisher Model of Population Genetics. *BIO-Complexity*, 2020(4):1–6, 2020. Preprint.
- 6. **Daniel Andrés Díaz-Pachón** and Robert J. Marks II. Generalized active information: Extensions to unbounded domains. *BIO-Complexity*, 2020(3):1–6, 2020. Preprint.
- 5. **Daniel Andrés Díaz-Pachón**, Juan P. Sáenz, and J. Sunil Rao. Hypothesis testing with active information. *Stat & Probab Letters*, 161:108742, 2020. Preprint.
- 4. **Daniel Andrés Díaz-Pachón**, Juan P. Sáenz, J. Sunil Rao, and Jean-Eudes Dazard. Mode hunting through active information. *Appl Stochastic Models Bus Ind*, 35(2):376–393, 2019. Preprint.
- 3. **Daniel Andrés Díaz-Pachón**, Francisco J. P. Zimmermann, and Luis Alberto López-Pérez. F tests for the strip-split plot design. *Revista Brasileira de Biometria*, 34(2):279–303, 2016. Preprint.
- 2. **Daniel Andrés Díaz-Pachón**. Percolation for the stable marriage of Poisson and Lebesgue with random appetites. *Stochastics*, 85(2):252–261, 2013. Preprint.
- 1. **Daniel Andrés Díaz-Pachón**. A note on large deviations for the stable marriage of Poisson and Lebesgue with random appetites. *J Theor Probab*, 25(1):77–91, 2012. Preprint.

## Book chapters....

1. **Daniel Andrés Díaz-Pachón**, Jean-Eudes Dazard, and J. Sunil Rao. Unsupervised Bump Hunting Using Principal Components. In S. Ejaz Ahmed, editor, *Big and Complex Data Analysis: Methodologies and Applications*, pp. 325–345. Springer International Publishing, 2017. Preprint.

## Dissertations

- Daniel Andrés Díaz-Pachón. Advisor: Serguei Popov. Algumas propriedades de alocações para o processo pontual de Poisson. Doctoral dissertation (Portuguese). Instituto de Matemática e Estatística, Universidade de São Paulo, Brazil, 2009. Tesis.
- Daniel Andrés Díaz-Pachón. Advisors: Luis Alberto López-Pérez, Francisco J. P. Zimmermann. Hipótesis lineales sobre medias para experimentos de franjas en parcelas divididas. Undergraduate dissertation (Spanish). Departamento de Estadística, Universidad Nacional de Colombia, 2004. Tesis.

### References

#### J. Sunil Rao

Director, Division of Biostatistics,

Department of Public Health Sciences, University of Miami.

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### Robert J. Marks II

Distinguished Professor,

Electrical & Computer Engineering, Baylor University.

Phone: +1 (254) 710 7302

Email: Robert\_Marks@baylor.edu