# James **Benn**

Technical Writer & Researcher



### Personal

James Benn nationality: New Zealand 1987

## Soft skills

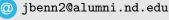
A curious and patient listener · Very strong written communication and presentation skills · A diplomat who leads by giving people what they need to perform.

## **Professional Interests**

I'm a technical writer and research scientist working in mathematics and statistics. I'm interested in statistics and mathematics for both civil, and software, engineering, and producing and maintaining technical documentation of all kinds.

## **Areas of specialization**

Mathematics · Statistics for Medical Shape & Image Analysis · SP and Quality Control for Manufacturing · Software for Civil **Engineering Applications** · Technical Writing · Research · Teaching · Supervision



Personal Website

🕠 Iksiri

## Resumé

#### 2020-now **Research Scientist**

INRIA · France 9

PhD student supervision, manuscript and presentation supervision, independent researcher in statistics for non-linear data.



#### 2019-2020 **Senior Claims Analyst**

MINISTRY FOR PRIMARY INDUSTRIES · New Zealand ♀ Business performance analyst, and legal memoranda draftsman.



2018 Visiting Researcher

> Bu-Ali-Sina University & Goethe University · Iran & Germany 💡 Independent researcher in the geometry and analysis of hydrodynamics.



2018 **Construction & Maintenance Quality Control Analyst** 

HIGGINS CONSTRUCTION · New Zealand ♥

Maintenance KPI development, Statistical Process Control automation and road surface quality protocol automation.



2016-2017 Postdoctoral Researcher and Lecturer

Massey University · New Zealand ♀

Graduate and Undergraduate course instructor, independent researcher.



2015-2016 Statistical Consultant

MID-CENTRAL DISTRICT HEALTH BOARD · New Zealand 💡

Emergency department patient-flow modeling, and resource allocation.



## **DEGREES**

2015 **PhD Mathematics** 

> University of Notre Dame · IN, USA 🏦



2012 M.A. Mathematics

> University of Notre Dame · IN, USA 🏦



2009 BInfSc Mathematics and

**Statistics** 



Massey University · New Zealand m



# **PRESENTATIONS**

May. 2024 "Right-Invariant Geometry of Lie Groups", at: Geometric Sciences in Action CIRM, Marseille, France,

Mar 2023 "Conjugate Points  $\mathcal{D}_{\mu}(S^2)$ ; but what are they really?", at: Maynooth University Ireland.

"The Measurement and Nov 2021 Analysis of Shapes", at: Universite Paris 1 (Pantheon Sorbonne), SAMM Seminar Paris, France

# RECENT PUBLICATIONS

Programming

LATEX

python

2024 with S. Marsland, Delta-type 1-Forms and Knots as Weak Coadjoint Orbits (in preparation)

2024 with J. Harrison, Improving Neural Network Surface Processing with Principal Curvatures

2023 with M. Pederson, Principal Subbundles for Dimension Reduction

2022 with S. Marsland, A Setting for the Measurement and Analysis of Shape

2021 Conjugate Points on  $\mathcal{D}_{\mu}\left(S^{2}\right)$