James **Benn**

Technical Writer & Researcher

About me

I like lots of different problems and challenges.

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 • Surprisingly entertaining... at times.

Professional Interests

I'm a technical writer and research scientist working in mathematics, statistics and software for industry. 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

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Personal Website
Iksiri

Resumé

2020-now — **Research Scientist**
Inria · France

2019-2020 — **Senior Claims Analyst**
Ministry for Primary Industries · New Zealand

2018 — **Visiting Researcher**
Bu-Ali-Sina University & Goethe University · Iran & Germany

2018 — **Construction & Maintenance Quality Control Analyst**
Higgins Construction · New Zealand

2016-2017 — **Postdoctoral Researcher and Lecturer**
Massey University · New Zealand

2015-2016 — **Statistical Consultant**
Mid-Central District Health Board · New Zealand

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

Programming

LaTeX
python
R

Presentations

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

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

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

Recent Publications

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* $\mathcal{D}_\mu\left(S^2\right)$