# Josef Bisits

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## EDUCATION

University of New South Wales
PhD candidate, supervisor Associate Professor Jan Zika, in the School of Mathematics and Statistics.

University of New South Wales
Bachelor of Science (Advanced Mathematics) (Honours) Class 1, major in applied mathematics.

University of Sydney
Bachelor of Music (Performance), major in double bass performance.

Sydney
2016–2021

## **Publications**

- 1. **Bisits, Josef I.**, Stanley, Geoffrey J., Zika, Jan D. 2022: Can we accurately estimate a lateral diffusivity from a single tracer release? *Journal of Physical Oceanography*, DOI: 10.1175/JPO-D-22-0145.1
- 2. Lloyd, Simon D., **Bisits**, **Josef I.**, Roser, David J., Khan, Stuart J., 2023: Assessing the impact of stormwater contamination events in urban estuaries proposed for bathing, (in prep).

# Conference Proceedings, Seminars and Workshops

#### Oral Presentations

• Bisits, Josef I., Can we accurately estimate a lateral diffusivity from a single tracer release? November 28th 2022. Australian Meteorological and Oceanographic Society annual conference 27th November - 1st December 2022.

#### Poster Presentations

• Bisits, Josef I.: Can we accurately estimate a lateral diffusivity from a single tracer release? November 9th 2022. Australian Centre for Excellence in Antarctic Science workshop 8-9th November 2022.

## Research experience

Research assistant Sydney

Assisted Associate Lecturer Simon Lloyd in historical water quality data analysis and modelling:

2022

- processing and analysing data used to develop the 'riverwatch model' - a predictive water quality model.

#### Collaboration with Water Research Centre, UNSW

Sydney

Recreational water quality in urban rivers:

2020

provided Initial and ongoing advice regarding spatial and temporal analysis of water quality and meteorological data.
 Acknowledged in: Lloyd, D. S., et al. Swimming in urban rivers: Development of a Bayesian Belief Network to predict health risks to recreational users. Closed Cycles 2020, Zurich, Switzerland, (2020, Sep 2-4).

### Programming Skills

#### Programming languages

- julia, R, MTEX:
  - author of OceanRasterConversions.jl;
  - developer of PassiveTracerFlows.jl; and
  - contributor to FourierFlows.jl, GeophysicalFlows.jl amongst others.

### TEACHING

Mathematics tutor University of New South Wales Classroom and private mathematics tuition: 2021-Current - mathematics drop in centre; and - mathematics 1A (MATH1131). Double bass Sydney Private and ensemble double bass tuition in Sydney. 2017-2022 Professional activities Peer Review Journal of Geophysical Research: Oceans. Ongoing Orchestral Experience Sydney Symphony Orchestra Sydney Regular casual double bassist: 2009-Current - full time contract musician for 2015 season and September 2017–September 2018; and Sydney symphony fellowship 2010. Australian Chamber Orchestra Sydney Regular casual double bassist: 2013-Current - emerging artist in 2013. Opera Australia Orchestra Sydney Regular casual double bassist. 2016-Current Tasmanian Symphony Orchestra Tasmania Casual double bassist. 2013-2018 Ulster Orchestra Belfast Double bassist: Winter 2012 - held a trial for double bass section leader. Southbank Sinfonia London Double bassist: 2011-2012 principal double bassist; and twice appeared as a solo double bassist. Scholarships and Awards • Australian Government Research Training Program Scholarship. 2022-2025 • School of Mathematics and Statistics research scholarship top-up. 2022-2025 Australian Centre for Excellence in Antarctic Research PhD student. 2022 - 2025• Corina d'Hage string scholarship. 2008-2010 • Michael Bannigan scholarship for academic achievement. 2010 • Winner of Sydney Youth Orchestra concerto competition. 2006 OUTREACH • Helper for Girls do the Maths!, University of New South Wales. 2022 • Helper for Experience UNSW Science day, University of New South Wales. 2022 • Climate @ maths display for UNSW open day, University of New South Wales. 20222022 • Helper for uDASH work experience workshop, University of New South Wales.

## REFERENCES

- Associate Professor Jan Zika, University of New South Wales, Sydney.
- Associate Lecturer Simon Lloyd, University of New South Wales, Sydney.
- $\bullet \ \, \mathbf{Dr} \,\, \mathbf{Geoff} \,\, \mathbf{Stanley}, \, \textit{Banting Postdoctoral Fellow, University of Victoria, Canada}.$

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