

Josef Bisits

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EDUCATION

- University of New South Wales** Sydney
• PhD candidate, supervisor Associate Professor Jan Zika, in the School of Mathematics and Statistics. 2022–current
- University of New South Wales** Sydney
• Bachelor of Science (Advanced Mathematics) (Honours) Class 1, major in applied mathematics. 2016–2021
- University of Sydney** Sydney
• Bachelor of Music (Performance), major in double bass performance. 2007–2010

PUBLICATIONS

- Bisits, Joesf I.**, Stanley, Geoffrey J., Zika, Jan D., 2023: Can we accurately estimate a lateral diffusivity from a single tracer release? *Journal of Physical Oceanography*, **53**(2), 647–659, DOI: [10.1175/JPO-D-22-0145.1](https://doi.org/10.1175/JPO-D-22-0145.1).
- Lloyd, Simon D., **Bisits, Joesf 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, Joesf I.**, Can we accurately estimate a lateral diffusivity from a single tracer release? July 13th 2022, *XXVIII General Assembly of the International Union of Geodesy and Geophysics (IUGG), Berlin 2023*. DOI:[10.57757/IUGG23-0125](https://doi.org/10.57757/IUGG23-0125).
- Bisits, Joesf I.**, Can we accurately estimate a lateral diffusivity from a single tracer release? November 28th 2022, *Australian Meteorological and Oceanographic Society annual conference, Adelaide 2022*.

POSTER PRESENTATIONS

- Bisits, Joesf 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*.

SUMMER SCHOOLS




- Physics of the Ocean Summer School, Bad Honnef, Germany 2-7th July 2023. Presented poster.

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

-  , 
 - 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** Ongoing
 - Journal of Geophysical Research: Oceans.

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.

OUTREACH

- **Helper for Girls do the Maths!**, *University of New South Wales*. 2022, 2023
- **Helper for Experience UNSW Science day**, *University of New South Wales*. 2022
- **Climate @ maths display for UNSW open day**, *University of New South Wales*. 2022, 2023
- **Helper for uDASH work experience workshop**, *University of New South Wales*. 2022

SCHOLARSHIPS AND AWARDS

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| • Michael Tallis Research travel award. | 2023 |
| • 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 |

REFERENCES

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|---|---|
| • Associate Professor Jan Zika , <i>University of New South Wales, Sydney.</i> | Email: j.zika@unsw.edu.au |
| • Associate Lecturer Simon Lloyd , <i>University of New South Wales, Sydney.</i> | Email: s.lloyd@unsw.edu.au |
| • Dr Geoff Stanley , <i>Banting Postdoctoral Fellow, University of Victoria, Canada.</i> | Email: gstanley@uvic.ca |