

Koji Tominaga

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Summary

I am an environmental scientist with a specialisation in scientific high-performance computing. My application fields to date have been **climate change**, **anthropogenic pollution**, **biogeochemistry**, and **freshwater systems**. My interests in computing and numerical methods include **machine learning**, **parameter estimation**, **quantification of modelling uncertainty** and **data visualisation**. Highlights in HPC experiences:

- Environmental model implementation on **3 HPC platforms** (Notur/Norstore, Sharcnet, Amazon EC2),
- Management of terabyte data arrays, and
- Expert skills in **Unix**, **Python** and **R** languages.

Education

2009–2013	PhD in Biology, University of Oslo
2007–2009	MSc in Environmental Science, Trent University
2003–2007	BSc in Environmental Science, Trent University

Academic Exchanges

Feb–Mar 2009	Technische Universität München
Apr–Jun 2009	Norwegian Institute for Water Research

Work Experiences

2013–current	Post-doctoral researcher, University of Oslo
2010–2013	Part-time Researcher, Norwegian Institute for Water Research
2006–2009	Research Assistant, Trent University
2007–2008	Teaching Assistant, Trent University
2008	Seminar Instructor, Trent University
2006–2007	Grader, Trent University
2006–2007	Technical Assistant, Kawartha World Issues Centre

Relevant Communications

- [1] Couture RM, Tominaga K, Starrfelt J, Moe SJ, Kaste Ø, et al. (2014) Modelling phosphorus loading and algal blooms in a nordic agricultural catchment-lake system under changing land-use and climate. *Environ Sci: Processes Impacts* 16: 1588–1599.
- [2] Tominaga K (2013) Lake Modelling: an interdisciplinary context. PhD thesis, University of Oslo, Oslo, Norway.
- [3] Tominaga K, Finstad AG, Kaste Ø, Andersen T (2012) Future climate change impact on lakes in fennoscandia: A dynamic mechanistic approach. Otsu, Shiga, Japan. 2012 ASLO Aquatic Sciences Meeting. Oral presentation. Presenter.
- [4] Tominaga K, Aherne J, Watmough SA, Alveteg M, Cosby BJ, et al. (2010) Predicting acidification recovery at the hubbard brook experimental forest, new hampshire: Evaluation of four models. *Environ Sci Technol* 44: 9003–9009.
- [5] Tominaga K, Aherne J, Watmough S, Alveteg M, Cosby B, et al. (2009) Voyage without constellation: evaluating the performance of three uncalibrated process-oriented models. *Hydrol Res* 40: 261–272.

In total, I have 6 peer-reviewed publications showcasing the uses of HPC methods, approximately 30 conference abstracts, 4 times peer-reviewer contributions, and attended numerous international scientific meetings in 13 countries.