# Curriculum Vitae

Anne Willem Omta
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Department of Theoretical Biology
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Title of PhD research project: Organic carbon pump in meso-scale ocean flows (more information available on http://www.bio.vu.nl/thb/research/project/)

Supervisors: Sebastiaan A.L.M. Kooijman and Henk A. Dijkstra

Estimated date of PhD defence: March 15th, 2009

Research interests:

- (Paleo)climate dynamics
- Biogeochemical modelling
- Physical Oceanography

Background:

- Born in Groningen, The Netherlands, on September 14th, 1978
- M.Sc. Physics and Meteorology & Physical Oceanography, Utrecht University 1996 – 2002
- M.Sc. research project Meteorology & Physical Oceanography under supervision of Henk Dijkstra 2000 – 2001
- M.Sc. research project Experimental Physics at the Institute for Atomic and Molecular Physics (AMOLF) under supervision of Huib Bakker 2001 – 2002
- Research assistant at AMOLF 2002 – 2004
- Research assistant at the Vrije Universiteit 2004 – current

Publications:

- Anne Willem Omta, Henk A. Dijkstra. A physical mechanism for the Atlantic-Pacific flow reversal in the early Miocene. Global and Planetary Change 36 (2003) 265–276
- Anne Willem Omta, Michel F. Kropman, Sander Woutersen, Huib J. Bakker. Negligible effect of ions on the hydrogen-bond structure in liquid water. Science 301 (2003) 347–349
- Anne Willem Omta, Michel F. Kropman, Sander Woutersen, Huib J. Bakker. Influence of ions on the hydrogen-bond structure in liquid water. Journal of Chemical Physics 119 (2003) 12457–12461
- Huib J. Bakker, Michel F. Kropman, Anne Willem Omta, Sander Woutersen. Hydrogen-bond dynamics of water in ionic solutions. Physica Scripta 69 (2004) C14–C24
- Huib J. Bakker, Michel F. Kropman, Anne Willem Omta. Effect of ions on the structure and dynamics of liquid water. Journal of Physics-Condensed Matter 17 (2005) S3215–S3224
- Anne Willem Omta, Jorn Bruggeman, Sebastiaan A.L.M. Kooijman, Henk A. Dijkstra. The biological carbon pump revisited: Feedback mechanisms between climate and the Redfield ratio. Geophysical Research Letters 33 (2006) Art. No. L14613
- Anne Willem Omta, Sebastiaan A.L.M. Kooijman, Henk A. Dijkstra. The influence of (sub)mesoscale eddies on the soft-tissue carbon pump. Journal of Geophysical Research - Oceans 112 (2007) Art. No. C11009
- Anne Willem Omta, Sebastiaan A.L.M. Kooijman, Henk A. Dijkstra. Critical turbulence revisited: The impact of submesoscale vertical mixing on plankton patchiness. Journal of Marine Research 66 (2008) 61–85
- Anne Willem Omta, Jorn Bruggeman, Sebastiaan A.L.M. Kooijman, Henk A. Dijkstra. The physics of the organic carbon pump. Submitted to the Journal of Sea Research
- Anne Willem Omta, Jérôme Llido, Véronique Garçon, Sebastiaan A.L.M. Kooijman, Henk A. Dijkstra. How to interpret satellite chlorophyll observations: a case study about the Mozambique Channel. Submitted to Deep-Sea Research I

Experience with running one-dimensional ocean models (GOTM), high-resolution ocean models, and basin-scale ocean models (SPFLAME), with and without coupled biological models; programming in FORTRAN

Languages:

- Dutch (mother tongue)
- English (very good)
- German (good)
- French (fair)
- Russian (fair)
- Spanish (a bit)

Extracurricular activities:

- Member of student social organisation Unitas S.R. 1996 – 2003
- Member of the Utrecht Debating Society 1998 – 2004, participated in several debating tournaments
- Theatre performing
- Member of Physics Department Council at Utrecht University 1999 – 2000
- Voluntary work in Armenia (2004), Russia (2007) and the Netherlands (2008)
- Member of the board of PROVU (PhD-student's union at the Vrije Universiteit) 2005 – current