

Thierry HUCK <thuck(at)univ-brest.fr>
French, 38 years old, English fluent



Laboratoire de Physique des Océans
(UMR 6523 CNRS IFREMER IRD UBO)
Université de Bretagne Occidentale, UFR Sciences F.308
6 avenue Le Gorgeu, CS 93837, 29238 Brest Cedex 3, FRANCE
Tel.: +33 298-016510 - Fax: +33 298-016468
WWW: <http://www.ifremer.fr/lpo/thuck/>

RECENT OCCUPATIONS

- *Since Jan.2000*: Research Scientist at the French National Center for Scientific Research (CNRS). Stability and variability of the thermohaline circulation, conceptual and simplified climate models, observation (OVIDE) and investigation of the mechanisms responsible for climate variability over the North Atlantic within the CLimate VARIability international framework and the French Programs in Climate Dynamics (PNEDC, LEFE). *Laboratoire de Physique des Océans, Université de Bretagne Occidentale, Brest, France.*
 - Chief scientist for the Ovide 2004 cruise, and CTD chief operator for the 2002 and 2006 cruises: repeated hydrographic section between Portugal and Greenland.
 - Teaching of General Oceanography classes in engineering school ISEN (2000-2008), and PhD classes (UBO).
 - Supervision of 2 PhD students, 2 postdocs and several Masters.
- *Sept.1998-Dec.1999*: Research Associate, Program in Atmospheric and Oceanic Science. Simplified coupled ocean-atmosphere modeling and investigation of climate decadal variability mechanisms, participation in the Mesoscale Experiments in the Southern Ocean (MESO) project. *Geophysical Fluid Dynamics Laboratory, Princeton University AOS, Princeton, NJ.*
- *Sept.1997-Sept.1998*: Postdoctoral Researcher with Pr. Geoffrey Vallis. Analysis of the robustness of the interdecadal variability in ocean models forced by quasiconstant surface buoyancy fluxes: eddy-resolving simulations, wind-forcing, bottom topography. *Institute of Marine Sciences, University of California, Santa Cruz, CA.*
- *Oct.1996-Sept.1997*: Temporary research and teaching assistant (ATER). Research on the mechanism for decadal oscillations of the thermohaline circulation in ocean models. Courses of applied mathematics. *Laboratoire de Physique des Océans, Université de Bretagne Occidentale, Brest, France.*
- *Jan.1995-Sept.1996*: Research assistant with Pr. Andrew Weaver. Simplified models of the ocean thermohaline circulation, comparison of momentum dissipation parameterizations, analysis of decadal variability in ocean models under constant flux forcing. *School of Earth and Ocean Sciences, University of Victoria, Victoria, BC, Canada.*

CONTRIBUTIONS TO RESEARCH

- Sévellec, F., T. Huck, M. Ben Jelloul, J. Vialard, 2008: Non-normal multidecadal response of the thermohaline circulation induced by optimal surface salinity perturbations. *Journal of Physical Oceanography*, submitted.
- Sévellec, F., T. Huck, M. Ben Jelloul, N. Grima, J. Vialard, A. Weaver, 2007: Optimal surface salinity perturbations of the meridional overturning and heat transport in a global ocean general circulation model. *Journal of Physical Oceanography*, in press.
- Sévellec, F., M. Ben Jelloul, T. Huck, 2007: Optimal surface salinity perturbation influencing the thermohaline circulation. *Journal of Physical Oceanography*, **37**, 2789-2808.
- Arzel, O., A. Colin de Verdière, T. Huck, 2007: On the origin of interdecadal oscillations in a coupled ocean-atmosphere model. *Tellus A*, **59**, 367-383.
- Arzel, O., T. Huck, A. Colin de Verdière, 2006: The different nature of the interdecadal variability of the thermohaline circulation under mixed and flux boundary conditions. *Journal of Physical Oceanography*, **36**, 1703-1718.
- Cabanes, C., T. Huck, A. Colin de Verdière, 2006: Contributions of wind forcing and surface

heating to interannual sea level variations in the Atlantic Ocean. *Journal of Physical Oceanography*, **36**, 1739-1750.

- Sévellec, F., T. Huck, M. Ben Jelloul, 2006: On the mechanism of centennial thermohaline oscillations. *Journal of Marine Research*, **64**, 355-392.
- Branellec P., A. Billant, T. Huck, 2006: Campagne Ovide 2004 - Rapport de données CTD-O2. Rapport interne IFREMER DRO/DOPS/LPO/06-01, 304 p., Février 2006.
- Ben Jelloul, M., T. Huck, 2005: Low-frequency basin modes in a two-layer quasi-geostrophic model in the presence of a mean gyre flow. *Journal of Physical Oceanography*, **35**, 2167-2186.
- Huck, T., 2005: Le Gulf Stream et son rôle sur le climat. In: Catalogue de l'exposition "Si le Gulf Stream s'arrêtait ?", Musée Maritime de l'Île de Tatihou, Saint-Vaast-la-Hougue, France, 65-67.
- Arzel, O., T. Huck, 2003: Decadal oscillations in a simplified coupled model due to unstable interactions between zonal winds and ocean gyres. *Dynamics of Atmospheres and Oceans*, **37**, 245-270.
- Ben Jelloul, M., T. Huck, 2003: Basin modes interactions and selection by the mean flow in a reduced-gravity quasigeostrophic model. *Journal of Physical Oceanography*, **33**, 2320-2332.
- Bresch, D., T. Huck, M. Sy, 2002: Circulation thermohaline et équations planétaires géostrophiques : propriétés physiques, numériques et mathématiques. *Annales Mathématiques Blaise Pascal*, **9**, 181-212.
- Czaja, A., A. W. Robertson, T. Huck, 2002: The role of Atlantic ocean-atmosphere coupling in affecting North Atlantic Oscillation variability. In: The North Atlantic Oscillation: climatic significance and environmental impact, J. W. Hurrell, Y. Kushnir, G. Ottersen, and M. Visbeck Eds., *AGU Geophysical Monograph Series*, **134**, 147-172.
- Huck, T., G. K. Vallis, 2001: Linear stability analysis of the three-dimensional thermally-driven ocean circulation: application to interdecadal oscillations. *Tellus*, **53A**, 526-545.
- Huck, T., G. K. Vallis, A. Colin de Verdière, 2001: On the robustness of the interdecadal modes of the thermohaline circulation. *J. Climate*, **14**, 940-963.
- Colin de Verdière, A., T. Huck, 2000: A two degree of freedom dynamical system for interdecadal oscillations of the ocean-atmosphere. *J. Climate*, **13**, 2801-2817.
- Colin de Verdière, A., T. Huck, 1999: Baroclinic instability: A wavemaker for oceanic interdecadal variability. *J. Phys. Oceanogr.*, **29**, 893-910.
- Huck, T., A. Colin de Verdière, A. J. Weaver, 1999: Interdecadal variability of the thermohaline circulation in box-ocean models forced by fixed surface fluxes. *J. Phys. Oceanogr.*, **29**, 865-892.
- Huck, T., A. J. Weaver, A. Colin de Verdière, 1999: On the influence of the parameterization of lateral boundary layers on the thermohaline circulation in coarse-resolution ocean models. *J. Mar. Res.*, **57**, 387-426.
- Huck, T., 1997: Modeling the large-scale ocean thermohaline circulation: analysis of its interdecadal variability. *Ph. D. thesis dissertation, Université de Bretagne Occidentale, Brest, France*, 250 p.