

D R . B E R N D J . H A U P T

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DEGREES

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Ph.D. (magna cum laude) (marine geology, applied & theoretical oceanography, hydrology) Joint Research Project 313, Institute of Marine Science, University of Kiel	1994
Diploma (M.S.), Oceanography (applied & theoretical oceanography, applied physics, meteorology) Institute of Marine Science, University of Kiel	1991
B.S., Oceanography (oceanography, mathematics, applied & theoretical physics) Institute of Marine Science, University of Kiel	1986

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PROFESSIONAL EXPERIENCE & ACADEMIC APPOINTMENTS

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Systems Administrator for Advanced Research Support College of Earth and Mineral Sciences, The Pennsylvania State University	2022-present
Member of Graduate Faculty The Pennsylvania State University	2018-present
Associate Research Professor Earth and Environmental Systems Institute, The Pennsylvania State University	2017-present
Lecturer The Pennsylvania State University	2008-2015
Senior Research Associate Earth and Environmental Systems Institute, The Pennsylvania State University	2003-2017
Research Associate Earth Systems Science Center, The Pennsylvania State University	1999-2003
Visiting Scientist Earth Systems Science Center, The Pennsylvania State University	1998-1998
Research Associate Joint Research Project 313, University of Kiel	1994-1998
Systems/Network Administrator Joint Research Project 313, University of Kiel	1991-1998

Research Associate Institute of Marine Science, University of Kiel	1991-1991
Research Assistant/Teaching Assistant Institute of Marine Science, University of Kiel	1989-1991
Research Assistant/Teaching Assistant Institute of Experimental and Applied Physics, University of Kiel	1986-1989

## AWARDS

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2012 Altoona College Outstanding Lecturer Award The Pennsylvania State University	2012
Best Poster Award for “ <i>Weather Based Internet Map Services: Bringing NOAA's Weather Data to your Desktop</i> ” presented at the “ <i>24th Conference on IIPS (Interactive Information and Processing Systems) for Meteorology, Oceanography, and Hydrology</i> ” at the 88th American Meteorological Society meeting in New Orleans, 20-24 January 2008 – selected from several hundred poster presentations.	2008

## ACADEMIC TEACHING & STUDENT ADVISING EXPERIENCE

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### Courses Taught:

- EMSC 100S – First Year Student seminar (FA 2015 – FA2023)
- Earth 297A (Environmental Threats to the Marine Environment (co-taught, SP 2011)
- MIS 204 (Management Information systems – Continuing Education (FA 2013)
- Meteo 003 (SP and FA 2008-2015)
- Geog 123 (FA 2011, SP 2012, FA 2012, SP 2013)
- Geog 010 (SP 2013)
- Geosc 040 (sections 1 & 2; oceanography (SP 2009, FA 2009, SP 2015)
- Tutoring for the Division of Business and Engineering at Penn State Altoona CMPSC 122/CMPSC 197 (FA 2013)
- Lecturer/Seminar Organizer (College of Earth and Mineral Sciences), EMIC— Environmental Modeling
- Guest Lecturer, Advanced Oceanography: Oceans Role in Climate Change, Penn State University; Guest lecturer in Meteo 597: Weather data and GIS
- Guest lecturer, Department of Risk Management, International Business, Smeal College of Business, IB 497C (FA 2017)
- Literature seminars at both PSU and Joint Research Project 313/Kiel University for students and faculty
- Applied Physics (introduction into physical oceanography and in-situ units), University of

Kiel.

- Advisor for in 2017 recognized student organization “Surf Club” at the Pennsylvania State University (2017-present)
- Advising: Graduate students: A. Herrmann (Ph.D., 2000-2003), J.M. Dickens (Masters, Graduate Committee, 2002-2004), Kalev Hantsoo (Masters, Graduate Committee, 2015-2017); Brandon L. Clark (Masters, Adviser and Graduate Committee, 2016-2018).
- Tutored for the department for Division of Business and Engineering at Penn State Altoona CMPSC 122/CMPSC 197 (FA 2013).
- Supported students during their studies but have not been on their advisory committee: Jessica Proud (Masters, graduated successfully in 2004), Mark Zelinka (Masters, graduated successfully in 2004), B. Lamptey (Ph.D., defended successfully in 2005), Karla Panchuck (Ph.D.), C.A Brennan (Ph.D./Masters) Undergraduate students: Eric Brozefsky (graduated successfully in 2003), Brie Turso (graduated successfully in 2003), Andrea Schuetz (graduated successfully in 2004).
- Weekly seminar for graduate students and post-docs with Dr. K. Keller and Dr. R. Najjar (2004-2006), unofficial role due to visa status that would not allow for any official involvement.
- Weekly Meteorology seminar for graduate students and post-docs (Dr. K. Davis; participation 2009-2018).
- Related Activities: Support EMS graduate student poster exhibition/competition; served as judge for competition; participate in and exhibit with PASDA at NASA Space Grant annual Space Day to educate students about GIS and remotely sensed data.

#### SUBMITTED MANUSCRIPTS / IN PREPARATION

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Monteiro, V.C., N.L. Miles, S.J. Richardson, Z. Barkley, **B.J. Haupt**, David Lyon, B. Hmiel, and K.J. Davis, 2021, *Methane, carbon dioxide, hydrogen sulfide, and isotopic ratios of methane observations from the Permian Basin tower network*, submitted to Earth System Science Data [preprint], doi 10.5194/essd-2022-33.

Clark, B.L., L.R. Kump, **B.J. Haupt** and C.J. Poulsen *Numerical simulations of the Western Interior Seaway at the Cenomanian-Turonian Boundary (93.9 Ma): Development of anoxia during OAE2*, Paleceanography and Paleoclimatology

**Haupt, B.J.**, M.C. Kelly, *Weather Based Internet Map Services: Bringing NOAA’s Weather Data to your Desktop*, (ESRI book chapter, book proposal accepted, invited).

Guest editor for the *International Journal of Data Mining, Modelling and Management (IJDMMM)*, InderScience, 2009-present.

#### PUBLICATIONS

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- Monteiro, V., Miles, N.L., S.J. Richardson, Barkley, Z.R., **B.J. Haupt**, and K.J. Davis, 2021, *Permian Basin: in-situ tower greenhouse gas data*, The Pennsylvania State University Data Commons, University Park, Pennsylvania, USA (doi: 10.26208/98y5-t941)
- Miles, N.L., S.J. Richardson, D.K. Martins, K.J. Davis, and **B.J. Haupt**. 2020. *ACT-America: L1 Raw, Uncalibrated In-Situ CO<sub>2</sub>, CO, and CH<sub>4</sub> Mole Fractions from Towers*. ORNL DAAC, Oak Ridge, Tennessee, USA. (doi: 10.3334/ORNLDAAC/1798)
- Miles, N.L., S.J. Richardson, **B.J. Haupt**, K.J. Davis, B. Stephens and A. Watt, 2019, *Single-cell NDIR-based measurements of atmospheric CO<sub>2</sub> mole fractions measured at Ameriflux towers, 2006 - 2016*, The Pennsylvania State University Data Commons, University Park, Pennsylvania, USA (doi: 10.26208/fq80-7310)
- Richardson, S.J., N.L. Miles, T. Lauvaux, **B.J. Haupt** and K.J. Davis, 2019, Cavity ring-down spectroscopic measurements of CO<sub>2</sub> mole fraction in State College, Pennsylvania, 2017-2018, The Pennsylvania State University Data Commons, University Park, Pennsylvania, USA (doi: 10.26208/dc6p-cs52).
- Miles, N.L., S.J. Richardson, **B.J. Haupt** and K.J. Davis, 2019, *Tower-based atmospheric CO<sub>2</sub> mole fractions (raw, uncalibrated) measured as part of the National Carbon Program's Mid Continent Intensive, U.S. Upper Midwest, 2007-2009*, The Pennsylvania State University Data Commons, University Park, Pennsylvania, USA (doi: 10.26208/eesp-p939)
- Miles, N.L., S.J. Richardson, D.K. Martins, K.J. Davis, T. Lauvaux, **B.J. Haupt**, and S.K. Miller, 2019, *ACT-America: L2 In Situ CO<sub>2</sub>, CO, and CH<sub>4</sub> Concentrations from Towers, Eastern USA*, The Pennsylvania State University Data Commons, University Park, Pennsylvania, USA (doi: 10.26208/x0ar-p632)
- Hantsoo, K, L.R. Kump, **B.J. Haupt** and T. Bralower, 2018, *Tracking the Paleocene-Eocene Thermal Maximum in the North Atlantic: A Shelf-to-Basin Analysis With a Regional Ocean Model*, *Paleoceanography and Paleoclimatology*, 33(12), p. 1323-1507 (doi: 10.1029/2018PA003371)
- Hantsoo, K, **B.J. Haupt**, L.R. Kump and T. Bralower, 2018, *Analysis of the Paleocene-Eocene Thermal Maximum using the Regional Ocean Modeling System (ROMS)*, The Pennsylvania State University Data Commons, University Park, Pennsylvania, USA, (doi: 10.18113/D3MW9C)
- Miles, N.L., S.J. Richardson, D.K. Martins, K.J. Davis, T. Lauvaux, **B.J. Haupt**, and S.K. Miller, 2018, *ACT-America: L2 In Situ CO<sub>2</sub>, CO, and CH<sub>4</sub> Concentrations from Towers, Eastern USA*. ORNL DAAC, Oak Ridge, Tennessee, USA, (doi: 10.3334/ORNLDAAC/1568)
- Miles, N.L., D.K. Martins, S.J. Richardson, T. Lauvaux, K.J. Davis, **B.J. Haupt**, and C. Rella, 2017. *In-situ tower atmospheric methane mole fraction and isotopic ratio of methane data, Marcellus Shale Gas Region, Pennsylvania, USA*, The Pennsylvania State University Data Commons, University Park, Pennsylvania, USA, (doi: 10.18113/D3SG6N)
- Miles, N.L., S.J. Richardson, K.J. Davis, and **B.J. Haupt**, 2017, *In-situ tower atmospheric measurements of carbon dioxide, methane and carbon monoxide mole fraction for the Indianapolis Flux (INFLUX) project, Indianapolis, IN, USA*, The Pennsylvania State University Data Commons, University Park, Pennsylvania, USA, (doi: 10.18113/D37G6P)
- Garcia-Olivares, A. Almudena Agüero, **B.J. Haupt**, María J. Marcos, María V. Villard, José L. de

- Pablose, 2017, *A system of containment to prevent oil spills from sunken tankers*, Science of The Total Environment, Vol. 593-594, 242-252 (doi: 210.1016/j.scitotenv.2017.1003.1152)
- Haupt, B.J.** & D. Seidov, 2012, *Modeling geologically abrupt climate changes in the Miocene: Potential effects of high-latitude salinity changes*, Natural Science, Vol. 4, No. 3, 149-158, (doi: 10.4236/ns.2012.43022)
- Wilson, A.M. and **Haupt, B.J.**, 2012, *Chapter Two: The Geography of Pennsylvania*, in Wilson, A.M. , D.W. Brauning and R.S. Mulvihill, eds., The Second Atlas of Breeding Birds in Pennsylvania, Penn State Press, University Park, PA, 612 pp, ISBN: 978-0-271-05630-2, 2012.
- Herrmann, A.D. and **Haupt, B.J.**, 2010, *Toward identifying potential causes for stratigraphic change in subtropical to tropical Laurentia during the Mohawkian (early Late Ordovician)*, in Finney, S.C., and Berry, W.B.N., eds., The Ordovician Earth System: Geological Society of America Special Paper 466, p. 29-35 (doi: 10.1130/2010.2466(03)).
- Haupt, B.J.**, *Ocean Circulation: An Overview and Current Trends in Research*, In: Ocean Circulation and El Niño: New Research, John A. Long and David S. Wells (Eds.), pp. 99-118, 2009, ISBN: 978-1-60692-084-8
- Kelly, M. C., **B. J. Haupt**, and R. E. Baxter, *Internet map services and weather data*. In Handbook of Research on Innovations in Database Technologies and Applications: Current and Future Trends, edited by Ferragine, V. E., J. H. Doorn and L. C. Rivero, pp. 300-306, Information Science Reference (formerly Idea Group Reference), Hershey, Pennsylvania, USA, 2009 (invited).
- Institute for Business & Home Safety, contributors (R. Bernstein, P. Bourgeron, T. Brown, J. Jochen, **B. J. Haupt**, H. Humphries, C. Hunter, S. M. McCaffrey, P. Morgan, S. L. Quarles, C. Westling, and J. Whaley), *Mega Fires: The case for mitigation - The Witch Creek wildfire*, October 21031, 2007, 1-48 pp., Institute for Business & Home Safety, Tampa, FL 33617, 2008.
- Kelly, M. C., **B. J. Haupt**, and R. E. Baxter, *The evolution of SDI geospatial data clearinghouses*. In Encyclopedia of data warehousing and mining, edited by Wang, J., pp. 802-809, Information Science Reference (formerly Idea Group Reference), Hershey, Pennsylvania, USA, 2008 (invited).
- Haupt, B.J.**, M.C. Kelly, R.E. Baxter, and J.F. Spayd, *Internet Map Services: Bringing the weather to your desktop*, Disaster Safety Review, 6(2), 12-14, 2007 (invited).
- Haupt, B.J.** and Seidov, D., *Strength and weakness of the global ocean conveyor: Inter-basin freshwater disparities as the major control* (Progress in Oceanography, 73(3), 358-369, 2007.
- Stouffer, R.J, Seidov, D., and **B.J. Haupt**, *Climate response to external sources of freshwater: North Atlantic versus southern Ocean*, Journal of Climate, 20(3), 436-448, 2007.
- Haupt, B.J.** and M.C. Kelly, *Chapter 47: Ensuring the future of the oceans*, Companion Encyclopedia of Geography, From the Local to the Global, 2nd edition, Editors: Ian Douglas, Richard Huggett, and Chris Perkins, Routledge, Taylor & Francis Group, ISBN: 9780415339773, pp. 1032, 2006 (invited).
- Seidov, D., R.J. Stouffer, and **B.J. Haupt**, *Is there a simple bi-polar ocean seesaw?* Global and Planetary Change, 49(1-2), 19-27, 2005.
- Seidov, D. and **B.J. Haupt**, *How to run a minimalist's global ocean conveyor*, Geophysical Research Letters, 32(7), L07610-1 – L07610-4, 2005.

- Herrmann, A.D. and **B.J. Haupt**, Global cooling as a potential cause for stratigraphic change in the early Late Ordovician of Laurentia. In: Peter M. Sheehan and Thomas Servais (Eds.), 2005. Abstracts for the Second International Symposium of IGCP503 on Ordovician Palaeogeography and Palaeoclimate. Insight, *A Milwaukee Public Museum Series in Natural History*. No. 2, 40 p. Milwaukee Public Museum, Milwaukee, WI, USA, 13-14, 2005. Available on-line at: <http://www.mpm.edu/cr/insight>, ISBN 0-89326-216-1.
- Marcos, M.J., A. Agüero, A.J. García-Olivares, **B.J. Haupt**, and J.L. de Pablos, *Assessment of oil behavior from "Prestige's" tanks in the Atlantic deep sea*, *Scientia Marina*, 68(3), 307-315, 2004. (Note: This article has been picked up and reported by the press including TV stations in the US and Europe numerous times.)
- Herrmann, A., **B.J. Haupt**, M.E. Patzkowsky, D. Seidov, and R. Slingerland, *Response of Late Ordovician paleoceanography to changes in sea level, continental drift, and atmospheric pCO<sub>2</sub>: potential causes for long-term cooling and glaciation*, *Palaeogeography, Palaeoclimatology, Palaeoecology*, 210(2-4), 385-401, 2004.
- Seidov, D. and **B.J. Haupt**, *Freshwater teleconnections and ocean thermohaline circulation*, *Geophysical Research Letters*, 30(6), 2003.
- Seidov, D. and **B.J. Haupt**, *On sensitivity of ocean circulation to sea surface salinity*, *Global Planetary Change*, 753(36), 99-116, 2003 (was added to the Antarctic Bibliography, a bibliographic database covering the scientific literature of the Antarctic region since 1951).
- Taylor, A.H., Skinner, C.N.; Carleton, A.M.; Stephens, S.L., Trouet, V., **Haupt, B.J.**, and Pierce, A., *Fire climate interactions and predicting fire season severity in the Mediterranean Climate Areas of California, southern Oregon, and Western Nevada*, Joint Fire Research Program (JFSP) Research Project Reports. Paper 156, 1-18 p, <http://digitalcommons.unl.edu/jfस्पresearch/156>, 2003
- Haupt, B.J.** and D. Seidov, *Sea surface salinity as a key to global ocean conveyor*, in *Terra Nostra*, #4, edited by U. Bayer, H. Burger, and W. Skala, pp. 407-412, Papyrus-Druck GmbH, Berlin, 2002 (invited).
- Seidov, D. and **B.J. Haupt**: *On the role of inter-basin surface salinity contrasts in global ocean circulation*, *Geophysical Research Letters*, 29(16): 47-1 – 47-4, 2002.
- Seidov, D., E.J. Barron, and **B.J. Haupt**: *Meltwater and the global ocean conveyor: Northern versus southern connections*, *Global and Planetary Change*, 30: 257-270, 2001.
- Haupt, B.J.** and D. Seidov, *Changes in the deep ocean conveyor and eolian sediment transport caused by meltwater events in high latitudes*, IAMG'2001, Proceedings of the fifth annual conference of the International Association for Mathematical Geology, 1–17, September 2001, <http://www.kgs.ukans.edu/Conferences/IAMG/Sessions/B/Papers/haupt.pdf>.
- Haupt, B.J.** and D. Seidov, *Glacial-to-interglacial changes of the ocean circulation and eolian sediment transport*. In: D. Seidov, **B.J. Haupt** und M. Maslin (eds.), *The oceans and rapid climate change: Past, present, and future*. AGU, Washington, DC, 169–197, 2001.
- Seidov, D., **B.J. Haupt**, E.J. Barron, and M. Maslin, *Ocean bi-polar seesaw and climate: Southern versus northern meltwater impacts*. In: D. Seidov, **B.J. Haupt**, and M. Maslin (eds.), *The oceans and rapid climate change: Past, present, and future*. AGU, Washington, DC, 147–167, 2001.
- Haupt, B.J.** and D. Seidov: *Surface freshwater controls of the deep ocean circulation during the*

- Cretaceous, *Geology*, 29(4), 295–298, 2001.
- Seidov, D., E.J. Barron, and **B.J. Haupt**: Meltwater and the global ocean conveyor: Northern versus southern connections, *Global and Planetary Change*, 30(3-4): 253–266, 2001.
- Fohrmann, H., J. O. Backhaus, F. Blaume, **B.J. Haupt**, J. Kämpf, W. Ritzrau, J. Rumohr, and R. Woodgate: *Modern ocean current-controlled sediment transport in the Norwegian-Greenland Seas*. In: *The Northern North Atlantic: A Changing Environment*. P. Schäfer, W. Ritzrau, M. Schlüter, J. Thiede (eds.) Springer Verlag, 135–154, 2001.
- Sarnthein, M., K. Statterger, H. Bauch, O. Costello, D. Dreger, H. Erlenkeuser, P. Grootes, **B.J. Haupt**, S. Jung, W. Kuhnt, D. Seidov, C. Schäfer–Neth, M. Schulz, J. Simstich, U. Struck, A. van Krefeld, A. Völker, and M. Weinelt: *Fundamental modes and abrupt changes in North Atlantic circulation and climate over the last 60 ky – Concepts, reconstruction, and numerical modelling*. In: *The Northern North Atlantic: A Changing Environment*. P. Schäfer, W. Ritzrau, M. Schlüter, J. Thiede (eds.) Springer Verlag, 365–410, 2001.
- Seidov, D. and **B.J. Haupt**: *Last glacial and meltwater inter-basin water exchanges and sedimentation in the world ocean*, *Paleoceanography*, 14/6, 760–769, 1999.
- Shao, L., K. Statterger, W. Li and **B.J. Haupt**: *Depositional style and subsidence history of the Turpan Basin (NW China)*, *Sedimentary Geology*, Vol. 128, NOS. 1–2, pp. 155–169, 1999.
- Haupt, B.J.** and K. Statterger: *The ocean–sediment system and stratigraphic modeling in large basins*, *Numerical Experiments in Stratigraphy: Recent Advances in Stratigraphy and Sedimentologic Computer Simulations*, SEPM Special Publications No. 62, SEPM (Society for Sedimentary Geology), 313–321, 1999 (with additional Computer animation).
- Haupt, B.J.**, K. Statterger, and D. Seidov: *SEDLOB and PATLOB: Two numerical tools for modeling climatically forced sediment and water volume transport in large ocean basins*, in: *Computerized Modeling of Sedimentary Systems*, Eds. J. Harff, W. Lemke und K. Statterger, ISBN 3–540–64109–2, Springer, New York, 115–147, 1999.
- Seidov, D. and **B.J. Haupt**: *Numerical study of glacial and meltwater global ocean thermohaline conveyor*, in: *Computerized Modeling of Sedimentary Systems*, Ed. J. Harff, W. Lemke und K. Statterger, ISBN 3–540–64109–2, Springer, New York, 79–113, 1999.
- Seidov, D. and **B.J. Haupt**: *Circulation and sediment transport in the North Atlantic during the meltwater event near 13.5 ka B.P.*, *Paleoclimates*, 2(2–3), 163–182, 1998.
- Shao L., K. Statterger, L. Wenhou, **B.J. Haupt**, and L. Yiquin: *Subsidence characteristics of Turpan Basin and its tectonic implications*, *Progress in Natural Science*, 8/5, 597–603, 1998.
- Haupt, B.J.** and K. Statterger: *Glacial–interglacial sediment modeling and stratigraphic stacking in the North Atlantic*, IAMG'98, Proceedings of The Fourth Annual Conference of the International Association for Mathematical Geology – Part 2, Eds.: A. Buccianti, G. Nardi und R. Potenza, September 1998, ISBN Vol. 2: 88–900308–2–8, p. 633–639, 1998.
- Seidov, D. and **B.J. Haupt**: *Global ocean thermohaline conveyor at present and in the late Quaternary*, *Geophys. Res. Letters*, 24, 2817–2820, 1997.
- Seidov, D. and **B.J. Haupt**: *Simulated ocean circulation and sediment transport in the North Atlantic during the last glacial maximum and today*, *Paleoceanography*, 12, 281–305, 1997.
- Haupt, B.J.** and K. Statterger: *Modeling of sediment and water volumes transport in large basins: The*

*late Quaternary in the North Atlantic*, IAMG'97, Proceedings of The Third Annual Conference of the International Association for Mathematical Geology – Part 2, Ed.: V. Pawlowsky-Glahn, ISBN Vol. 2: 84–87867–99–5, 609–616, 1997.

**Haupt, B.J.**, D. Seidov, and K. Stattegger: *Data based modeling of sediment and water volumes transport during the Late Quaternary in large ocean basins*, Terra Nova, 9, 618–619, 1997.

Stattegger, K., **B.J. Haupt**, C. Schäfer-Neth, and D. Seidov: *Numerische Modellierung des Ozean–Sediment Systems in großen Meeresbecken: Das Spätquartär im nördlichen Nordatlantik*, Geowissenschaften, 15/1, 10–15, 1997.

**Haupt, B.J.** and K. Stattegger: *Data based modeling of the ocean-sediment system in large basins*, Proceedings of the conference Numerical Experiments in Stratigraphy – An International Workshop, Kansas Geological Survey, Department of Geology Energy Research Center at The University of Kansas, Lawrence, Kansas, 15.-17. Mai, Eds.: W. L. Watney, E. C. Rankey, E. K. Franseen und R.H. Goldstein, 101–104, 1996.

SFB 313 (project members): *SFB313 „Veränderungen der Umwelt: Der nördliche Nordatlantik“*, Christiana Albertina, Forschungsbericht und Halbjahresschrift der Universität Kiel, 41, 1–89, Oktober 1995.

**Haupt, B.J.**, C. Schäfer-Neth, and K. Stattegger: *Three-dimensional numerical modeling of late Quaternary paleoceanography and sedimentation in the northern North Atlantic*, Geol. Rundsch., 84, 137–150, 1995.

**Haupt, B.J.**, M. G. Wiesner, and M. Sarnthein: *CTD profiles and bottom water temperatures in the South China Sea (Sonne–95 Cruise), Preliminary Report on Sonne–95 Cruise „Monitor Monsoon“ to the South China Sea*, Geologisch–Paläontologisches Institut und Museum der Christian–Albrechts–Universität Kiel, Deutschland, Eds. M. Sarnthein, U. Pflaumann und P. X. Wong, ISSN 0175–9302, 68, 181–194, 1994.

Sarnthein, M., P.–X. Wang, R. Botz, M.–P. Ph. Chen, **B.J. Haupt**, S. Heilig, E. Heinrich, Z.–M. Jiang, M. Kienast, H.–L. Lin, U. Pflaumann, and M. Staubwasser: *Important Types of echo character in sediments of the South China Sea (Sonne–95 Cruise), Preliminary Report on Sonne–95 Cruise „Monitor Monsoon“ to the South China Sea*, Geologisch–Paläontologisches Institut und Museum der Christian–Albrechts–Universität Kiel, Deutschland, Eds. M. Sarnthein, U. Pflaumann und P. X. Wong, ISSN 0175–9302, 68, 57–67, 1994.

**Haupt, B.J.**, C. Schäfer-Neth, and K. Stattegger: *Modeling sediment drifts: A coupled oceanic circulation–sedimentation model of the northern North Atlantic*, Paleoceanography, 9, p. 897–916, 1994 (doi: 10.1029/94PA01437).

## PH.D. THESIS

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**Haupt, B.J.**, *Numerische Modellierung der Sedimentation im nördlichen Nordatlantik*, Report 54, Sonderforschungsbereich 313 (Joint Research Project 313), Kiel University, Kiel, Germany, 1–129, 1995



## DIPLOMA (M.S.) THESIS

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**Haupt, B.J.:** *Fluß-Gradient-Beziehung in wirbelauflösenden Modellen*, Diplomarbeit in Ozeanographie am Institut für Meereskunde, Kiel University, Kiel, Germany, 1–97, 1990

## TECHNICAL REPORTS

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Gilmore, R. C. Pavloski, J. Anderson, M. Carnegie, M. Campbell, R. Cornwall, D. Dodson, B. Ezray, S. Fast, C. Forest. S. Fura, M. Gallo, **B.J. Haupt**, J. Leous, F. Montes. V. Longenecker, E. Navas, J. Nucciarone and C. Hudson Vitale, *RCCI Executive Committee Task Force on Research Data Storage and Transfers Recommendations to the RCCI Executive Committee Co-chairs*, The Pennsylvania State University, University Park, PA, USA, 16 pp., 2020

Hodgdon, K., M.C. Kelly, **B.J. Haupt**, *Project 008, Noise Outreach*, FAA ASCENT, FAA Center of Excellence, Alternative Jet Fuels & Environment, Annual Technical Report 2017 for the period October 01, 2016 – September 30, 2016, p. 112-116, 2017

Hodgdon, K., M.C. Kelly, **B.J. Haupt**, *Project 008, Noise Outreach*, FAA ASCENT, FAA Center of Excellence, Alternative Jet Fuels & Environment, Annual Technical Report 2016 for the period October 01, 2015 – September 30, 2016, p. 155-160, 2016

Hodgdon, K., M.C. Kelly, **B.J. Haupt**, *Project 008, Noise Outreach*, FAA ASCENT, FAA Center of Excellence, Alternative Jet Fuels & Environment, Annual Technical Report 2015 for the period September 13, 2013 – September 30, 2015, p. 154-159, December 2015

**Haupt, B.J.:** *Ergebnisse von Driftern in einem numerischen Modell*, Internal Report, Institut of Marine Sciences, University of Kiel, 51 pages, 1991.

## PRESENTATIONS – ORAL

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Hodgdon, K., M.C. Kelly, **B.J. Haupt**, *Project 008, Noise Outreach, Mitigation Through Outreach and Education, A Global Resource for Aviation Noise Outreach*, ASCENT 2016 Conference, April 2016

A.D. Herrmann, **Haupt, B.J.**, *The time-scale problem in model-data comparison studies*, AAPG 2010 Annual Convention & Exhibition, New Orleans, LA, April 11-14 2010 (invited)

**Haupt, B.J.**, A.D. Herrmann, T.J. Algeo, *Modeling the Middle-Late Pennsylvanian North American Midcontinent Sea*, AAPG 2010 Annual Convention & Exhibition, New Orleans, LA, April 11-14 2010 (invited)

Algeo, T.J., A.D. Herrmann, **Haupt, B.J.**, *Gradients in sediment geochemistry as a constraint on modeling epeiric sea circulation*, AAPG 2010 Annual Convention & Exhibition, New Orleans, LA, April 11-14 2010 (invited)

**Haupt, B.J.**, M. C. Kelly, R. Baxter, and J.F. Spayd, *Internet Map Services using NOAA's weather data: A Vital Tool only a mouse click away*, Applied Research Laboratory, Pennsylvania State University, August 19, 2009 (invited)

- Haupt, B.J.**, M. C. Kelly, R. Baxter, and J.F. Spayd, *Internet Map Services using NOAA's weather data: A Vital Tool*, 2008 ESRI International User Conference, San Diego, CA, USA
- Kelly, M.C., **B.J. Haupt**, R. Baxter, and J.F. Spayd, *GIS Clearinghouses and Biological/Temporal Data: Challenges and Opportunities*, 2008 ESRI International User Conference, San Diego, CA, USA
- Baxter, R.B., **Haupt, B.J.**, M. C. Kelly, and J.F. Spayd, *Live, remote access to dynamic weather forecasts from geospatial clients*, Annual Meeting of the Association of American Geographers. Boston, MA, USA, April 15-19, 2008.
- Haupt, B.J.**, *Bringing NOAA's Weather Data to your Desktop: Penn State's Internet Map Services*, Earth System Science Center seminar (Climate Dynamics Seminar - "A survey of topics at the forefront of current research in climate dynamics and paleoclimate", METEO 597E), October 24, 2007.
- Haupt, B.J.**, R.E. Baxter, and M.C. Kelly, *Integration of Climate & Temporal Data in ArcIMS Map Services*, 27<sup>th</sup> ESRI International Users Conference, San Diego, CA, USA, 18.-22. June 2007.
- Settelmaier, J., **B.J. Haupt**, R.E. Baxter, M.C. Kelly, and K. Waters, *Exploring ArcIMS Services in Delivering National Weather Service (NWS) Datasets to Support Decision-Makers*, 7th annual ESRI Federal Users Conference, Washington, D.C., USA, 9.-11. January 2007.
- B.J. Haupt**, *Freshwater role in running global ocean conveyor: SSS versus freshwater*, Applied Research Laboratory, PSU, Pennsylvania, USA, 2006 (invited).
- Seidov, D. and **B.J. Haupt**, *Inter-basin freshwater disparity, global ocean circulation, and climate: A modeling approach*, Earth Systems Science Center (ESSC), PSU, University Park, Pennsylvania, USA, 10/30/2005 (invited).
- B.J. Haupt**, *An example of an ESCMIC aka EMIC/ESCM*, seminar at Deike Bldg., PSU, University Park, Pennsylvania, USA, 2005.
- Herrmann, A. and **B.J. Haupt**, *Global cooling as a potential cause for stratigraphic change in the Early Late Ordovician of Laurentia*, IGCP503 Symposium, Milwaukee, USA, June 11-14, 2005.
- Keller, K., D. McInerney, and **B. J. Haupt**, *Early detection versus prediction of ocean circulation changes: Implications for the design of observation systems*, Ocean Science Meeting 2006, Honolulu, Hawaii, USA, 20–24 February 2006.
- Keller, K., D. McInerney, and **B. J. Haupt**, *Early detection versus prediction of ocean circulation changes: Implications for the design of observation systems*, "Deike" seminar, PSU, Pennsylvania, USA, 2006.
- Seidov, D. and **B.J. Haupt**, *Freshwater role in running global ocean conveyor*, special colloquium, UNH/EOS, Durham, New Hampshire, USA, 2005 (invited).
- Stouffer, R.J., D. Seidov, and **B.J. Haupt**, *Is there a bi-polar seasaw?*, American Geophysical Union, 2004 Fall Meeting, San Francisco, California, USA, 13.–17. December 2004.
- Seidov, D. and **B.J. Haupt**, *Global ocean sensitivity to local geologically short-term variability of freshwater fluxes*, American Geophysical Union, 2004 Fall Meeting, San Francisco, California, USA, 13.–17. December 2004 (invited).
- Haupt, B.J.** und D. Seidov, *North-south versus east-west ocean freshwater balance disruptions and*

*global ocean conveyor*, 2004 Joint Assembly: 17-21 May 2004 in Montreal, Canada. Sponsored by AGU; the Canadian Geophysical Union (CGU); the Society of Exploration Geophysicists (SEG); and the Environmental and Engineering Geophysical Society (EEGS).

Clarke, G.K.C.C., D. Seidov, und **B.J. Haupt**, *Freshwater ocean forcing scenarios for the megaflood from glacial Lake Agassiz*, 2004 Joint Assembly: 17-21 May 2004 in Montreal, Canada. Sponsored by AGU; the Canadian Geophysical Union (CGU); the Society of Exploration Geophysicists (SEG); and the Environmental and Engineering Geophysical Society (EEGS).

Seidov, D., **B.J. Haupt**, and G.K.C.C. Clarke, *Inter-basin sea surface salinity contrasts and the fate of ocean thermohaline circulation: Application to 8.2 ka outburst floods from glacial Lake Agassiz*, 2004 Joint Assembly: 17-21 May 2004 in Montreal, Canada. Sponsored by AGU; the Canadian Geophysical Union (CGU); the Society of Exploration Geophysicists (SEG); and the Environmental and Engineering Geophysical Society (EEGS).

Seidov, D. and **B.J. Haupt**, *Inter-basin versus Meridional Ocean Freshwater Disparity and Global Ocean Conveyor*, AGU Fall Meeting, San Francisco, California, USA, 8.–12. December 2003.

**Haupt, B.J.**, *Northern and southern freshwater impacts and global ocean circulation*, ICBM/Carl von Ossietzky University Oldenburg, Germany, February 2003 (invited).

**Haupt, B.J.** (2003) *Northern and southern freshwater impacts and global ocean circulation*, Max-Planck-Institute, University Hamburg, Germany, December 2002 (invited).

Seidov, D. and **B.J. Haupt** (2002) *Southern freshwater impacts and global ocean circulation*, AGU Fall Meeting, San Francisco, California, USA, 6–10 December 2002 (**Presented by B.J. Haupt**).

Herrmann, A., R.L. Slingerland, M.E. Patzkowsky, **Haupt, B.J.** and D. Seidov (2002) *Response of late Ordovician global ocean circulation and ocean temperature to changes in sea level, continental drift, and atmospheric  $pCO_2$* , The Geological Society of America (GSA), 2002 Denver Annual Meeting, Denver, Colorado, USA, 27-30 October 2002.

Seidov, D. and **B.J. Haupt**, *Sea surface conditions, ocean gateways, and global ocean conveyor*, AGU Fall Meeting, San Francisco, California, USA, 6.–10. December 2002.

**Haupt, B.J.**, *Northern and southern freshwater impacts and global ocean circulation*, Max-Planck-Institut für Meteorology, invited talk for department head search for group: “models and data”, Hamburg, Germany, 4. December 2002 (invited).

Herrmann, A., **Haupt, B.J.**, D. Seidov, Rudy L. Slingerland and Mark E. Patzkowsky: *Response of late Ordovician global ocean circulation and ocean temperature to changes in sea level, continental drift, and atmospheric  $pCO_2$* , The Geological Society of America (GSA), 2002 Denver Annual Meeting, Denver, Colorado, USA, 27.-30. October 2002.

**Haupt, B.J.** and D. Seidov, *Linkage between climate variability in high latitudes, deep-ocean circulation, and eolian sediment transport*, 2002 Annual Conference of the International Association for Mathematical Geology (IAMG), 15.-20. September 2002, Berlin, Germany.

**Haupt B.J.** and D. Seidov, *The Warm deep-ocean conveyor during Cretaceous period driven by surface salinity contrasts*, Ocean Science Meeting 2002, Honolulu, Hawaii, USA, 11.–15. February 2002.

Herrmann, A., M. E. Patzkowsky, D. Pollard, **B.J. Haupt**, and D. Seidov, *Changes of sea level and poleward ocean heat transport as potential causes for the Late Ordovician glaciation*, Ocean

Science Meeting 2002, Honolulu, Hawaii, USA, 11.–15. February 2002.

**Haupt, B.J.** and D. Seidov, *Changes in the deep ocean conveyor and eolian sediment transport caused by meltwater events in high latitudes*, 2001 Annual Conference of the International Association for Mathematical Geology (IAMG), Cancún, Mexico, 6.-12. September 2001.

**Haupt, B.J.**, *Globale Ozeanzirkulation – Schlüssel zu Vergangenheit und Zukunft, special colloquium* (short listed for fully tenured professorship position and vice department head for the Department of Physical Oceanography and Instrumentation), Baltic Sea Research Institute, Warnemünde, Germany, 2001, (invited).

Seidov, D., E.J. Barron, and **B.J. Haupt**, *The Role of the Southern Ocean in the World Ocean Deepwater Circulation*, AGU Fall Meeting, San Francisco, California, USA, 15.–19. December 2000.

**Haupt, B.J.** and D. Seidov, *Surface freshwater controls of the deep ocean circulation during the Cretaceous*, AGU Spring Meeting, Washington, DC, USA, 30. Mai – 3. June 2000.

Seidov, D., E.J. Barron, and **B.J. Haupt**, *Warm deep ocean in cool climates: The southern connection*, AGU Spring Meeting, Washington, DC, USA, 30. May – 3. June 2000.

Seidov, D., **B.J. Haupt**, and M. Maslin, *Glacial and Meltwater Deep-Ocean Conveyor: The Appraisal of Water Transport Alterations in a Numerical Model*, Ocean Science Meeting 2000, San Antonio, Texas, USA, 22.–24. January 2000.

Schulz, M., E. Erchinger, **B.J. Haupt**, M. Sarnthein, C. Schäfer-Neth, K. Statterger und D. Seidov, *Meltwater catastrophes in the North Atlantic and their effect on the carbon cycle*, Sixth International Conference on Paleoceanography, workshop „Global Environmental Changes: The Northern North Atlantic“, Lisbon, Portugal, 23.–28. August 1998.

**Haupt, B.J.**, *Sedimentation in large ocean basins during the Pleistocene*, Earth Science System Center, Penn State University, State College/Pennsylvania, USA, 6. May 1998 (invited).

**Haupt, B.J.** and K. Statterger, *Modeling of sediment and water volumes transport at different time slices: A comparison between the North Atlantic and the global conveyor*, IAMG'97, The Third Annual Conference of the International Association for Mathematical Geology, Barcelona, Spain, 22.–27. September 1997.

**Haupt, B.J.**, D. Seidov, and K. Statterger, *Data based modeling of sediment and water volumes transport during the Late Quaternary in large ocean basins*, EUG9, European Union of Geosciences, Strasbourg, France, 23.–27. March 1997.

Statterger, K. and **B.J. Haupt**, *Data based modeling of the ocean-sediment system in large basins*, Numerical Experiments in Stratigraphy – An International Workshop, Kansas Geological Survey, Department of Geology Energy Research Center at The University of Kansas, Lawrence, Kansas, USA, 15.–17. May 1996.

**Haupt, B.J.** and K. Statterger, *Numerical modeling of particle tracing – a prognostic tool in marine geology*, Prediction in Geology, Vrije Universiteit/Faculteit der Aardwetenschappen Amsterdam, Amsterdam, Holland, 22.–24. February 1996.

Statterger, K., **B.J. Haupt**, and C. Schäfer-Neth, *Modelling the ocean-sediment system: Forward running models and backward extending data*, Prediction in Geology, Vrije Universiteit/Faculteit der Aardwetenschappen Amsterdam, Amsterdam, Holland, 22.–24. February 1996.

**Haupt, B.J.**, *Modellierung der Sediment–Driften im nördlichen Nordatlantik*, Berichtskolloquium, Sonderforschungsbereich 313/Veränderungen der Umwelt: Der Nördliche Nordatlantik, Universität Kiel, Kiel, 24.–25. November 1995.

**Haupt, B.J.**, *Übersicht über Modell–Projekte und Ergebnisse im SFB 313/Numerische Modellierung der Sedimentation im nördlichen Nordatlantik*, Modellierung des Paläoklimas, Universität Bremen, Bremen, 20.–21. April 1995.

## POSTER & COMPUTER PRESENTATIONS

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Hodgdon, K., M.C. Kelly, **B.J. Haupt**, *Project 008, Noise Outreach, Mitigation Through Outreach and Education, A Global Resource for Aviation Noise Outreach*, ASCENT 2018 Conference, Sun River, Oregon, USA, June 7-9, 2018 (Note: This is a continuing project with a standing title)

Hantsoo, K., Kump, L.R., and **Haupt, B.J.**, *Tracking the North Atlantic shelf-to-basin response to the PETM: analysis with a high-resolution, terrain-following model*, CBEP 2017, Snowbird, UT, USA, 03.-07. September 2017

Hodgdon, K., M.C. Kelly, **B.J. Haupt**, *Project 008, Noise Outreach, Mitigation Through Outreach and Education, A Global Resource for Aviation Noise Outreach*, ASCENT 2017 Conference, Atlanta, Georgia, USA, May 3-4, 2017 (Note: This is a continuing project with a standing title)

Hodgdon, K., M.C. Kelly, **B.J. Haupt**, *Project 008, Noise Outreach, Mitigation Through Outreach and Education, A Global Resource for Aviation Noise Outreach*, ASCENT 2016 Conference, October 2016 (Note: This is a continuing project with a standing title)

**Haupt, B.J.**, and D. Seidov, *The Miocene Climate at 20 and 14 Ma: A model study with the focus on freshwater*, AGU Fall Meeting, San Francisco, CA, USA, 15.-19. December 2008.

Miles, N.L., S.J. Richardson, K.J. Davis, E. Crosson, A.S. Denning, N. Kershner, and **B.J. Haupt**, *Temporal and spatial patterns in regional- and continental-scale CO<sub>2</sub> mixing ratio measurements*. 2008 ESRL GMD Conference, Boulder, CO, 14-15 May 2008.

**Haupt, B.J.**, M. C. Kelly, R. Baxter, and J.F. Spayd, *Weather based Internet Map Services: Bringing NOAA's weather data to your desktop*, 24th Conference on IIPS (Interactive Information and Processing Systems) at the 88th AMS meeting in New Orleans, January 2008 (The presenters were awarded the “Best Poster Award”).

Kelly, M.C., **B.J. Haupt**, A. Ostroff, R.E. Baxter, J.F. Spayd, *Fisheries and Aquatic Resources Node NBII, OBIS 2007 (Ocean Biodiversity Informatics) conference*, Dartmouth, Nova Scotia, Canada, 2.-4. October 2007.

Herrmann, A.D. and **B.J. Haupt**, *Global cooling as a potential cause for stratigraphic change in the early Late Ordovician of Laurentia*, IGCP (International Geological Correlation Programme – 2<sup>nd</sup> International Symposium of IGCP503 on Ordovician Palaeogeography and Palaeoclimate), Milwaukee, WI, USA, 15.-18. June 2005.

**Haupt, B.J.** and D. Seidov, *Modeling Freshwater Impacts on Ocean Circulation During the Miocene at 20 and 14 Ma*, American Geophysical Union, 2004 Fall Meeting, San Francisco, California, USA, 13.–17. December 2004.

- Haupt, B.J.** und D. Seidov: *Modeling of ocean response to changes of the southern freshwater regime during the Miocene*, ICP 8 (International Conference on Paleoceanography 8), Biarritz, France, 4.–10. September 2004.
- Haupt, B.J.** and D. Seidov, *Modeling sensitivity of the ocean circulation to freshwater impacts during Eocene-Oligocene cooling climate trend*, CLIVAR 2004 (1<sup>st</sup> International CLIVAR Science conference), Baltimore, MD, USA, 21.–25. June 2004.
- Seidov, D. und **B.J. Haupt**, *Inter-basin freshwater exchange as a control of the global ocean thermohaline conveyor*, CLIVAR 2004 (1<sup>st</sup> International CLIVAR Science conference), Baltimore, MD, USA, 21.–25. June 2004.
- Haupt, B.J.** and D. Seidov, *Ocean response to possible southern meltwater pulses during Eocene-Oligocene cooling climate trend: A sensitivity ocean modeling study*, American Geophysical Union, 2003 Fall Meeting, San Francisco, California, USA, 8.–12. December 2003.
- Seidov, D. and **Haupt, B.J.**, *Latitudinal and longitudinal basin-scale surface salinity contrasts and freshwater transport by ocean thermohaline circulation*, American Geophysical Union, 2003 Fall Meeting, San Francisco, California, USA, 8.–12. December 2003.
- Haupt, B.J.** and D. Seidov, *Southern freshwater impacts and global ocean circulation*, American Geophysical Union, 2002 Fall Meeting, San Francisco, California, USA, 6.–10. December 2002.
- Herrmann, A., **Haupt, B.J.**, D. Seidov, Rudy L. Slingerland, and Mark E. Patzkowsky, *Response of late Ordovician global ocean circulation and ocean temperature to changes in sea level, continental drift, and atmospheric pCO<sub>2</sub>*, The Geological Society of America (GSA), 2002 Denver Annual Meeting, Denver, Colorado, USA, 27-30 October 2002.
- Haupt, B.J.** and D. Seidov, *Global ocean circulation during Cretaceous time*, San Francisco, California, USA, December 10-16, 2001.
- Haupt, B.J.** and D. Seidov, *The warm deep ocean conveyor during Cretaceous time*, ICP 7 (Seventh International Conference on Paleoceanography), Sapporo, Japan, 16.–22. September 2001.
- Haupt, B.J.** and D. Seidov, *Simulated Sediment Transport in Modeling of the Ocean Circulation*, AGU Fall Meeting, San Francisco, California, USA, 15.–19. December 2000.
- Haupt, B.J.** and D. Seidov, *Different sediment transport and particle motion during glacial-to-interglacial cycles of the ocean paleocirculation*, Ocean Science Meeting 2000, San Antonio, Texas, USA, 22.–24. January 2000.
- Haupt, B.J.** and D. Seidov, *Tracing Water and Sediment Transport in Simulations of Present-day, Glacial, and Interglacial Ocean Circulation Regimes*, American Geophysical Union, 1999 Fall Meeting, San Francisco, California, USA, 13.–17. December 1999.
- Seidov, D. and **B.J. Haupt**, *Interbasin water exchange and sedimentation during late Quaternary*, American Geophysical Union, 1998 Fall Meeting, San Francisco, California, USA, 6.–10. December 1998.
- Haupt, B.J.** and K. Statterger, *The ocean–sediment system and stratigraphic modeling in the North Atlantic*, IAMG '98, The Fourth Annual Conference of the International Association for Mathematical Geology, Ischia, Italy, 4.–9. October 1998.
- Fohrmann, H., J. Backhaus, J. Kämpf, **B.J. Haupt**, W. Ritzrau, and J. Rumohr, *Modelling near bottom sediment transport*, ICP6 (Sixth International Conference on Paleoceanography), Lisbon, Portugal,

23.–28. August 1998.

**Haupt, B.J.** and D. Seidov, *Modeling late Pleistocene ocean global thermohaline conveyor*, ICP6 (Sixth International Conference on Paleoceanography), Lisbon, Portugal, 23.–28. August 1998.

Stattegger, K. and **B.J. Haupt**, *Modeling of climatically forced sedimentation patterns and sedimentary sequences in the North Atlantic*, ICP6 (Sixth International Conference on Paleoceanography), Lisbon, Portugal, 23.–28. August 1998.

Schäfer, P. and members of SFB 313, *The SFB 313, Global environmental change – The northern North Atlantic*, ICP6 (Sixth International Conference on Paleoceanography), Lisbon, Portugal, 23.–28. August 1998.

**Haupt, B.J.**, *Modeling sediment transport and stratigraphy in the North Atlantic*, American Geophysical Union, 1998 Spring Meeting, Boston, Massachusetts, USA, 26.–29. Mai 1998.

Seidov, D. and **B.J. Haupt**: Glacial to interglacial changes of ocean thermohaline conveyor during late Quaternary, American Geophysical Union, 1997 Fall Meeting, San Francisco, USA, 8.–12. December 1997.

**Haupt, B.J.** and K. Stattegger, *Modeling of sediment and water volumes transport at different time slices: A comparison between the North Atlantic and the global conveyor*, IAMG'97, The Third Annual Conference of the International Association for Mathematical Geology, Barcelona, Spain, 22.–27. September 1997.

**Haupt, B.J.**, D. Seidov, and K. Stattegger, *Data based modeling of sediment and water volumes transport during the Late Quaternary in large ocean basins*, EUG9, European Union of Geosciences, Strasbourg, France, 23.–27. March 1997.

Stattegger K., **B.J. Haupt**, C. Schäfer-Neth, and D. Seidov, *Numerical modelling of the ocean-sediment system in large basins: The Late Quaternary in the northern North Atlantic*, 87th annual meeting of the Geologische Vereinigung „Elementare Geologische Prozesse“, Jülich, Germany, 27. February – 1. March 1997.

**Haupt, B.J.**, D. Seidov, and K. Stattegger, *Data based modeling of sediment and water volumes transport during the late Quaternary of the North Atlantic*, Computerized Modeling of Sedimentary Systems, Güstrow, Germany, 8.–11. October 1996.

Seidov, D., **Haupt, B.J.**, and K. Stattegger *North Atlantic paleocirculation and sediment transport: A study using a threefold modeling approach*, Computerized Modeling of Sedimentary Systems, Güstrow, Germany, 8.–11. October 1996.

**Haupt, B.J.** and K. Stattegger, *Data based modeling of the ocean-sediment system in large basins*, Numerical Experiments in Stratigraphy – An International Workshop, Kansas Geological Survey, Department of Geology Energy Research Center at The University of Kansas, Lawrence, Kansas, 15.–17. May 1996.

**Haupt, B.J.** and K. Stattegger, *Modelling of the northern North Atlantic's sediment drifts in the modern and the last glacial maximum state using new 3-D numerical models*, Berichtskolloquium, Sonderforschungsbereich 313/Veränderungen der Umwelt: Der Nördliche Nordatlantik, University Kiel, Kiel, 24.–25. November 1995.

**Haupt, B.J.** and K. Stattegger, *New 3-D numerical sedimentation models for large ocean basins*, Berichtskolloquium, Sonderforschungsbereich 313/Veränderungen der Umwelt: Der Nördliche Nordatlantik, Universität Kiel, Kiel, Germany, 24.–25. November 1995.

**Haupt, B.J.** and K. Stattegger, *Modeling of the North Atlantic's sediment drifts in the modern and the last glacial maximum state using new 3-D numerical models*, ICP5 (Fifth International Conference on Paleoceanography), Halifax, Nova Scotia, Canada, 10.–14. October 1995.

**Haupt, B.J.**, Chr. Schäfer-Neth, and K. Stattegger, *Towards Modelling the Paleocirculation and Sedimentation of the Northern North Atlantic*, ICP4 (Fourth International Conference on Paleoceanography), Kiel, Germany, 137-138, 1992.

## REFERENCES TO SCIENTIFIC WORK IN PRESS AND MEDIA

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Presentations to the President's Council of Advisors on Science and Technology (PCAST): On January 20 and 21, 2022 the President's Council of Advisors on Science and Technology (PCAST) held a meeting to discuss various aspects of improving efforts to measure and monitor greenhouse gases and accelerating energy technology innovation. Penn State's work was specifically mentioned at 36:53 (Permian tower network) and 1:09:40 (Indianapolis FLUX tower network), January 2022

Penn State News, *New flooding risk tool developed for the state of Pennsylvania*, June 14, 2021

**Haupt, B.J.**, M.C. Kelly, R.E. Baxter, and J.F. Spayd, *Internet Map Services: Bringing the weather to your desktop*, Disaster Safety Review, 6(2), 12-14, 2007 (invited). Featured in television program "Discoveries and Breakthroughs Inside Science" aired in August 2008, <http://www.ivanhoe.com/science/>.

Marcos, M.J., A. Agüero, A.J. García-Olivares, **B.J. Haupt**, and J.L. de Pablos: *Todavía quedans unas 20.000 toneladas de fuel en el 'Prestige'*, El Mundo (Spanish newspaper), October 2004.

de Pablos Marcos J.L., M.J., A. Agüero, A.J. García-Olivares, and **B.J. Haupt**: "Prestige"-Wrack enthält noch etwa 20 000 Tonnen Öl, Tagesthemen (DPA, German TV News Broadcast) October 2004.

de Pablos Marcos J.L., M.J., A. Agüero, A.J. García-Olivares, and **B.J. Haupt**: "Prestige"-Wrack soll noch 20 000 Tonnen Öl enthalten, ORF (Austrian Radio Broadcast) October 2004.

de Pablos Marcos J.L., M.J., A. Agüero, A.J. García-Olivares, and **B.J. Haupt**: "20.000 Tonnen Öl im Wrack, Kurier (Austrian newspaper – paper & online), October 2004.

**B.J. Haupt** and A. Agüera: *Sunken tanker may help cleanup in future accidents*, Penn State News and Announcements/Penn State Live, January 2005.

**B.J. Haupt** and A. Agüera: *Scientist studies sunken tanker*, Penn State, The Collegian, January 2005.

This topic was cited by many more online news providers like <http://barcelona.indymedia.org>, <http://www.eurekalert.org>, <http://www.innovation-report.com>, <http://www.iso.org>, etc.

**B.J. Haupt** and M.C. Kelly: *Researchers author chapter in geography encyclopedia*, <https://news.psu.edu/story/198461/2007/02/02/researchers-author-chapter-geography-encyclopedia>, Penn State News and Announcements/Penn State Live, February 2007.

**B.J. Haupt**, M.C. Kelly, J. Settelmaier, R.E. Baxter, and J.F. Spayd: *Customized weather maps developed at Penn State can help avert disaster*,



<https://news.psu.edu/story/194705/2007/08/08/customized-weather-maps-developed-penn-state-can-help-avert-disaster>, Penn State News and Announcements/Penn State Live, February 2007.

K. Hodgdon, D. Carbone, R. Girvin, I. Waitz, M.C. Kelly, A. Atchley, additional team members included Penn State, Purdue University, the Washington Airports Authority, the Palisades Citizens Association and aviation noise-consulting firms Harris Miller & Hanson Inc. and Wyle Laboratories. Laurette Fisher of the FAA Office of Environment and Energy: *New Web site offers resources to better understand aviation noise*, <http://live.psu.edu/story/38018>, March 2009.

M.C. Kelly, R.E. Baxter, **B.J. Haupt**, J.F. Spayd, T.R. Mueller, T. Warner, P. Sforza, J.M. Morgan, J. Im: *ChesapeakeView: Everything you need to know about the bay*, <http://live.psu.edu/story/51822>, Penn State News and Announcements/Penn State Live, March 2011.

## UNIVERSITY & PROFESSIONAL SERVICE AND COMMITTEES

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Penn State's Research IT Leaders – Integration Platform Advisory Committee (RIT-IPAC), Penn State (2021-present)

Search Committee – Assistant Research Professor, Earth and Environmental Systems Institute (2021)

Penn State's Research Computing and Cyberinfrastructure (RCCI; reports to the Senior Vice President for Research and the Chief Information Officer) – Research Data Management Focus Group, Penn State (2021-present)

Penn State's College of Earth and Mineral Science's "EMS 125th Anniversary Planning Committee – Diversity Subcommittee of the EMS 125th Anniversary team" (2021-present)

Penn State's College of Earth and Mineral Science's Diversity Council subcommittee "EMS Diversity Awards Working Group" (2021-present)

JEWEL Design Committee (Joint Energy-Water-Environment Laboratory), Earth and Environmental Systems Institute's (EESI, Penn State) (2021-present)

University IT Advisory Council (ITAC) (2021-present)

Penn State's Research IT Leaders – Constituency Group (RIT-CG), Penn State (2021-present)

Box Migration Project Advisory Committee (Office of the Vice President for IT and CIO, Penn State) (2021-present)

Judge for Penn State's Undergraduate Exhibition (04/14/2021)

RCCI Executive Committee's Task Force on Research Data Storage and Transfers in support of Penn State's Research Computing and Cyberinfrastructure (RCCI; reports to the Senior Vice President for Research and the Chief Information Officer) (2019-2021)

ACI-REF ICDS Search Committee (Research and Development Engineer 2 (Advanced CyberInfrastructure - Research & Education Facilitator ACI-REF)) (2020)

Chair, Climate Use Case Working Group NSF - DIBBS - VDC (NSF - Data Interface Building Blocks - Virtual Data Collaboratory NSF) (Penn State – Rutgers - University of Utah) (2020-

present)

Protein Data Bank (PDB) Working Group NSF - DIBBS - VDC (NSF - Data Interface Building Blocks - Virtual Data Collaboratory NSF) (Penn State – Rutgers - University of Utah) (2020-present)

Ocean Observatory Interface (OOI) Working Group NSF - DIBBS - VDC (NSF - Data Interface Building Blocks - Virtual Data Collaboratory NSF) (Penn State – Rutgers - University of Utah) (2020-present)

Federation and Data Sciences Working Group NSF - DIBBS - VDC (NSF - Data Interface Building Blocks - Virtual Data Collaboratory NSF) (Penn State – Rutgers - University of Utah) (2020-present)

Judge for Penn State's Undergraduate Exhibition (04/16/2020)

Penn State's Research Computing and Cyberinfrastructure (RCCI; reports to the Senior Vice President for Research and the Chief Information Officer) Task force on Research Data Storage and Transfers (2020-present)

Penn State's Earth and Mineral Science Fixed-Term Faculty Advisory Committee (2020-present)

EMS Mental Health Working Group (2020-present) – This initiative was spun off from Penn State's College of Earth and Mineral Science's Diversity Council in Spring 2020

EMS ALLWE Implementation Steering Committee (2019-present) – Invitation from Dean Kump to participate in creating the EMS implementation plan of the results of the “Assessment of the Living, Learning, and Working Environment (ALLWE) in EMS”

EMS Environment Study Working Group (2018-2020) – Invitation from Dean Kump to participate in creating the EMS survey “Assessment of the Living, Learning, and Working Environment (ALLWE) in EMS”

Penn State's Research Computing and Cyberinfrastructure (RCCI) Service and Process Coordination Working Group (2019-present)

Penn State's Research Computing and Cyberinfrastructure (RCCI; reports to the Senior Vice President for Research and the Chief Information Officer) High Performance Computing Working Group (2019-present)

Judge for AGU's Spring 2019 Virtual Poster Showcase (7 posters and presentations)

Judge for 7th Annual EMS Undergraduate Poster Exhibition (02/2019)

Judge for Penn State's Undergraduate Exhibition (04/17/2019)

EGU proposal reviewer (2019)

PSU Senate proposal reviewer (2019)

Penn State's Research Computing and Cyberinfrastructure (RCCI; reports to the Senior Vice President for Research and the Chief Information Officer) Advanced Research Computing Support Working Group (2018-2019)

Penn State's Research Computing and Cyberinfrastructure (RCCI; reports to the Senior Vice President for Research and the Chief Information Officer) Research Project Life Cycle Working Group (2018-2019)

Earth and Environmental Systems Institute's (EESI, Penn State) Internal Safety Committee (2018-present)

Penn State's Advisory Council for Research Computing and Cyberinfrastructure 2017-2018 (2017-2018)

Penn State's Research Computing and Cyberinfrastructure (RCCI; reports to the Senior Vice President for Research and the Chief Information Officer) Software and Services Working Group (2017-2018)

Penn State's Research Computing and Cyberinfrastructure (RCCI; reports to the Senior Vice President for Research and the Chief Information Officer) Research Data Life Cycle Working Group (2017-2018)

Member of European Science Foundation College of Expert Reviewers (20 October 2016 to 19 October 2019)

Judge for AGU's Spring 2018 Virtual Poster Showcase

Judge for EMS Undergraduate Poster Exhibition (11/28/2018)

NASA Postdoctoral Program Review Panel (2016-present)

Earth and Environmental Systems Institute (EESI, Penn State) Energizing Committee (October 2016-2017)

Representative for the College of Earth and Mineral Science on the "Data Life Cycle and Data Archiving Task Force" which is part of Penn State's "Advisory Council on Data Governance, Life Cycle, Security" and "Committee on Data Governance" (2016-2017)

Penn State's Research Computing and Cyberinfrastructure governance (RCCI; reports to the Senior Vice President for Research and the Chief Information Officer) Data Archiving Task Force (2016-2017)

Penn State's College of Earth and Mineral Science's Information Technology Advisory Committee representing the Earth and Environmental Systems Institute (EESI) (2016-present)

Penn State's College of Earth and Mineral Science's Diversity Council representing the Earth and Environmental Systems Institute (EESI) (2015-present)

Earth and Environmental Systems Institute (EESI) Advisory Committee (2013-2016)

Chair, Penn State's Earth and Environmental Systems Institute's Fixed-Term and Research Faculty Promotion Committee (2012-2015)

Penn State's Earth and Mineral Science College Fixed-Term and Research Faculty Promotion Committee (2012-2014)

Webmaster, Earth and Environmental Systems Institute (EESI) (2012-present)

EESI – Earth and Environmental Systems Institute Communications Committee (2012-2017)

EESI – Earth and Environmental Systems Institute "Green Team" (2012-2019)

Marine Science Faculty (EMS, Penn State; 2011-present)

GIS data provider for Deepwater Horizon oil spill cleanup (2010-2011)

Unofficial student advising for study abroad (PSU Altoona), 2008-2015

Guest editor, International Journal of Data Mining, Modelling and Management (IJDMMM), InderScience (2009-present)

International Review Board for the International Journal of Engineering Research and Innovation (IJERI) (2009-present)

International Review Board for the International Journal of Modern Engineering (IJME) (2009-present)

Fixed-Term & Research Faculty Advisory Committee, EMS College (2005-09)

Research Computing Advisory Committee, EESI, (2005-present)

Head, ESSC High Performance Computing Group for Numerical Climate Modeling, 2005-present.

Member, EESI High Performance Computing Group, 2005-present.

Judge for EMS graduate student poster exhibition/competition, 2005

Session chair and convener for a session at AGU Fall Meeting 2004

Session chair and convener for two sessions at AGU Ocean Science Meeting 2002

Co-editor of AGU Volume: *The oceans and rapid climate change: Past, present, and future*. AGU, Washington, D.C., 2001

Session chair and convener for two sessions at AGU Fall Meeting 2000

Session chair and convener for two sessions at AGU Ocean Science Meeting 2000

Organizer and convener of IAMG'98 Meeting (The Fourth Annual Conference of the International Association for Mathematical Geology) in 1998

Organizer and convener of IAMG'97 Meeting (The Third Annual Conference of the International Association for Mathematical Geology) in 1997

Organizer and convener of Kiel Paleoclimate Modeling Workshop in 1997

## COMPUTER & SOFTWARE EXPERTISE

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Operating Systems: Unix/Linux (over 35 years of daily experience including system administration), VMS, DOS, Windows (from Win 3.x to Win 7/8.x, Win Server 2003, and Win 10 – all as administrator), Macintosh

Programming ,Visualization, and Modeling: Authored two global oceanic particle tracing and sediment transport models, ocean models and fully coupled 3-D climate models, FORTRAN including cpp and parallelizing, Basic, Assembler, Pascal, C/C++/C#, R, NetCDF/HDF5, GRIB2, PRISM, NCL/NCO, scripting in different shells, ProcMail, Python, PHP, MySQL, various visualization packages like GMT, Matlab, Grads, Ferret, Gnuplot, ImageMagick, LaTeX, etc.

GIS Software: ESRI ArcGIS, ESRI ArcIMS, ESRI ArcSDE, and GDAL

Database: Access, basics in mySQL and DB2

Statistical Software: SPSS, Minitab

Web-Coding: “by hand” and software packages like Dreamweaver (includes Bootstrap, CSS, JavaScript, etc.), Ruby, WordPress, Drupal

Noise Prediction Software: SoundPLAN, CadnaA (both database driven)

## SCIENTIFIC EXPEDITIONS

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More than 20 expeditions in North Sea, Baltic Sea, North Atlantic, northern North Atlantic, and South China Sea; two expeditions as chief scientist; joint work together with biologists, physicists, chemists, marine geologists, geo-physicists, meteorologists, and oceanographers.

## PROFESSIONAL MEMBERSHIPS

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American Geophysical Union (AGU)

American Meteorological Society (AMS)

International Association for Mathematical Geology (IAMG)

European Geophysical Union (EGU)

## REVIEWER

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Served as proposal reviewer for the following organizations: National Science Foundation (NSF), American Geophysical Union (AGU), European Science Foundation (ESF/EuroClimate, Natural Environment Research Council (NERC), the Bundesministerium fuer Forschung und Technologie (BMFT – German equivalent to NSF), and the U.S. Civilian Research & Development Foundation (CRDF).

Served as manuscript and book reviewer for: Springer-Verlag, IG Global, Copernicus Publications (Climate Past Discussions), InderScience Publishers, International Journal of Engineering Research and Innovation (IJERI), the International Association for Mathematical Geology (IAMG), International Journal of Modern Engineering (IJME), International Journal of Engineering Research and Innovation (IJERI), International Journal of Data Mining, Modelling and Management (IJDMMM), the American Geophysical Union (AGU, multiple journals), Climate of the Past (CP)/Climate of the Past Discussion (CPD), Technology Interface International Journal (TIIJ), Progress in Oceanography (PiO), Elsevier (Geoscience journals), Scientia Iranica

## LANGUAGES

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Fluent in English and German (written and oral); basics in French.

## PATENTS

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Almudena Agüero (CIEMAT), José Luis de Pablos (CIEMAT), Maria Jesús Marcos (CIEMAT), Maria Victoria Villar (CIEMAT), Luciano Romero (CIEMAT), Antonio García-Olivares (CSIC), and **Bernd J. Haupt**, *Método de confinamiento de contaminantes presentes en medios acuáticos basado en el empleo de mineral de sepiolita (Method of Confining Contaminants in Water Environments Based on the Use of Sepiolite Mineral)*, Spanish patent office, 2008 ⇔ Since 2014 sole patent owner.

Almudena Agüero (CIEMAT), José Luis de Pablos (CIEMAT), Maria Jesús Marcos (CIEMAT), Maria Victoria Villar (CIEMAT), Luciano Romero (CIEMAT), Antonio García-Olivares (CSIC), and **Bernd J. Haupt**, *Método de confinamiento de contaminantes presentes en medios acuáticos basado en el empleo de mineral de sepiolita (Method of Confining Contaminants in Water Environments Based on the Use of Sepiolite Mineral)*, inclusion of UK, 2009 ⇔ Since 2014 sole patent owner.

**Bernd J. Haupt**, *Método de confinamiento de contaminantes presentes en medios acuáticos basado en el empleo de mineral de sepiolita (Method of Confining Contaminants in Water Environments Based on the Use of Sepiolite Mineral)*, Europe wide, accepted in Spring 2016, granted in 2017.

## WEBSITES (WEBMASTER AND SUPPORT\*)

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EESI (Earth and Environmental Systems Institute) – <https://www.eesi.psu.edu>

Susan Brantley's personal website – <https://brantley.psu.edu>

MCOR (Marcellus Center for Outreach and Research) – <http://www.marcellus.psu.edu> (new website in preparation)

PSICE (Penn State Ice and Climate Research Center) – <https://psice.psu.edu>

LIME (Laboratory for Isotopes and Metals in the Environment) – <https://lime.psu.edu>

NoiseQuest – <http://www.noisequest.psu.edu>

INFLUX (INDianapolis FLUX) – <https://sites.psu.edu/influx>

CLD (Center for Landscape Dynamics) – <https://cld.psu.edu>

LandscapeU – <https://sites.psu.edu/landscapeu>

Marcellus CH<sub>4</sub> Network – <https://sites.psu.edu/marcellus>

PASDA – <https://www.pasda.psu.edu> \*

PSU DataCommons – <https://www.datacommons.psu.edu>

ChesapeakeView – <https://www.chesapeakeview.psu.edu> \*

Chequamegon Ecosystem-Atmosphere Study (ChEAS) – <https://www.cheas.psu.edu> \*

Gulf Coast Intensive – <https://sites.psu.edu/gulfcoast>

Carbon Dioxide Measurements for the NACP's Mid Co – <https://sites.psu.edu/ring2> \*

LEAPS (Landscape Ecology at Penn State) – <https://leaps.psu.edu> \*

ACT America Tower Sites – <https://sites.psu.edu/actamerica>

VIFF (Visualizing Forest Futures) – <https://viff.psu.edu> \*

ARC (Astrobiology Research Center) – <https://astrobiology.psu.edu>

PSSC (Planetary System Science Center) – <https://pssc.psu.edu>

CPEST (Consortium for Planetary & Exoplanetary Science & Technology) – <https://cpest.psu.edu>

CEHW (Center for Exoplanets & Habitable Worlds) – <https://exoplanets.psu.edu> \*

PSETI (Penn State Extraterrestrial Intelligence Center) – <https://www.pseti.psu.edu> \*

NASA Pennsylvania Space Grant Consortium – <http://sites.psu.edu/paspacegrant> \* (new site was released, content is still under development)

Pennsylvania Space Grant Consortium Alumni – <https://sites.psu.edu/psgcalumni> \* (new site will be set up by BJH in summer/fall 2022)

PA Space Grant Consortium Research Internship Program – <http://sites.psu.edu/wisermurefurp> \* (new site will be set up by BJH in summer/fall 2022)

Earth-Atmosphere Interactions Lab – <http://sites.psu.edu/earth-atmos-interactions-lab>

Soils CRA 2020 – <https://sites.psu.edu/soilscra2020> (new site currently under development)

ABRESO – <https://sites.psu.edu/abreso> (new site currently under development)

CZEN (Critical Zone Exploration Network) – <https://www.czen.org> (Drupal update from version 7 to version 9 forthcoming after release of Soils CRA 2020)

Data Storage Finder – <https://datastoragefinder.psu.edu/> \* (Penn State's website to compare storage options available to faculty, staff, and students)