

## Curriculum Vitae – Johannes Hahn

### Personal information

Name, first name: Hahn, Johannes  
Nationality: German  
Date of birth: 28-July-1982  
Place of birth: Halle (Saale), Germany

### Research interests

- dynamics, ventilation and oxygen budget of oxygen minimum zones in the open ocean
- large-scale and mesoscale circulation and its variability on seasonal to multi-decadal time scales
- water mass and oxygen distribution and its variability in response to circulation changes
- velocity, hydrography and oxygen observations in the open ocean from different platforms
- combination of these ocean observations with model simulations

### Employment

06/2013 - present      **Postdoctoral fellow** in the collaborative research centre SFB754 at GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany, RD Physical Oceanography

10/2009 – 05/2013      **PhD student** in the SFB754 at GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany, RD Physical Oceanography

### Education

05/2013      **Dr. rer. nat.** (magna cum laude) 'Oxygen Variability and Eddy-driven Merdional Oxygen Supply in the Tropical North East Atlantic Oxygen Minimum Zone'

10/2009 - 05/2013      **PhD student** in the SFB754 at GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany, RD Physical Oceanography

10/2003 - 09/2009      **Diploma** in Physics, Martin – Luther – University, Halle (Saale)

## Peer reviewed publications

[4] Karstensen, J., Fiedler, B., Schütte, F., Brandt, P., Körtzinger, A., Fischer, G., Zantopp, R. J., **Hahn, J.**, Visbeck, M. and D. W. R. Wallace: *Open ocean dead-zone in the tropical North Atlantic Ocean*. Biogeosciences (BG), 12. DOI 10.5194/bg-12-2597-2015. (2015).

[3] Brandt, P., Bange, H. W., Banyte, D., Dengler, M., Didwischus, S. H., Fischer, T., Greatbatch, R. J., **Hahn, J.**, Kanzow, T., Karstensen, J., Körtzinger, A., Krahnmann, G., Schmidtko, S., Stramma, L., Tanhua, T. and M. Visbeck: *On the role of circulation and mixing in the ventilation of oxygen minimum zones with a focus on the eastern tropical North Atlantic*. Biogeosciences (BG), 12. DOI 10.5194/bg-12-489-2015. (2015).

[2] **Hahn, J.**, P. Brandt, R. J. Greatbatch, G. Krahnmann and A. Körtzinger: *Oxygen variance and meridional oxygen supply in the Tropical North East Atlantic oxygen minimum zone*. Climate Dynamics, 43. DOI 10.1007/s00382-014-2065-0. (2014).

[1] Brandt, P., R. J. Greatbatch, M. Claus, S.-H. Didwischus, V. Hormann, A. Funk, **J. Hahn**, G. Krahnmann, J. Fischer and A. Körtzinger: *Ventilation of the equatorial Atlantic by the equatorial deep jets*. *Journal of Geophysical Research – Oceans*, 117. DOI 10.1029/2012JC008118. (2012).

## Manuscripts in review

[1] **Hahn, J.**, P. Brandt, S. Schmidtko, and G. Krahnmann: *Decadal oxygen change in the eastern tropical North Atlantic*. Ocean Science Discussions, in review. DOI 10.5194/os-2016-102. (2017).

## Teaching, coordination and memberships

2016 – present	<b>Member</b> of the collaborative research centre SFB 754 extended board and <b>representative</b> of the SFB 754 PostDocs
2014 – present	<b>Supervision of students</b> during various research cruises
2010 – present	<b>Supervision of students</b> within various seminars, literature works and internships
07/2016 - 11/2016	<b>Assistance in coordination, planning and chairing</b> of the SFB 754 one-week workshop for PostDocs in Göttingen, Germany
06/2016 – 09/2016	<b>Supervision of a student research assistant</b> for testing of self-written MATLAB toolboxes and analysis of oceanographic data
12/2014	<b>Preparation, coordination and chairing</b> of an afternoon seminar during the <i>Nansen Tutu Summer School on Ocean, Climate and Marine Ecosystem</i> in Capetown, South Africa
09/2014 – 11/2014	<b>Planning, coordination and PI</b> of the physical oceanography measurement program during <i>R/V Polarstern</i> cruise PS88.2

- 08/2013 **Chief scientist** during two one-day cruises with *R/V Skagerak* and *R/V Oscar von Sydow* during the SFB 754 summerschool in Kristineberg, Sweden
- 08/2013 **Supervision** of an external student in the framework of an internship
- 06/2013 – 08/2013 **Assistance in coordination and planning** of a two week SFB 754 summerschool in Kristineberg, Sweden
- 07/2011 – 08/2011 **Proposal** for and **supervision** of an external student within the *DAAD RISE* program
- 10/2010 **Research assistant** during practical field work on *R/V Alkor*

### Fundraising

- 2014 **Grant for funding** of additional costs (‘Restmittel’ funding by the SFB754) for *R/V Polarstern* cruise PS88.2
- 2011 **Grant** for an external student within the *DAAD RISE* program
- 2010 **Travel grant** (by ISOS) for the summer school on *Ocean Observation with Remote Sensing Satellites*

### Expeditions

- 2017 *R/V Ronald H. Brown* cruise RB-17-01, Leg 2
- 2016 *R/V Meteor* cruise M130
- 2015 *R/V Meteor* cruise M119
- 2014 *R/V Polarstern* cruise PS88.2 (**co-chief scientist and PI of the oceanographic research program**)
- 2014 *R/V Meteor* cruise M106
- 2013 *R/V Skagerak* and *R/V Oscar von Sydow* (**chief scientist during two one-day cruises in the framework of the SFB754 summer school**)
- 2012 *R/V Maria S. Merian* cruise MSM22
- 2011 *R/V Maria S. Merian* cruise MSM18/2
- 2010 *R/V Alkor* (practical field work for students)
- 2009 *R/V Meteor* cruise M80/1
- 2004 *R/V Meteor* cruise M62/3

### Computing and programming skills

- MATLAB (main usage), PYTHON, FORTRAN

- MATLAB based programming of toolboxes for internal use in research deviation (e.g. comprehensive instrument processing for calibration of mooring time series data)
- Mathematica, webpage programming (html, php, java)
- Adobe environment, TEX, Office package
- Linux/Windows/Mac environment

### **Conference and seminar talks**

[7] **Hahn, J.**, P. Brandt, S. Schmidtke, and G. Krahlmann: Interplay of oxygen and hydrography *in the eastern tropical North Atlantic on decadal to multi-decadal time scales*. EGU General Assembly 2016, Vienna, Austria, 17/04/2016 - 22/04/2016.

[6] **Hahn, J.**, H. C. Bittig, G. Krahlmann, J. Karstensen, P. Brandt, and A. Körtzinger: *In situ calibration procedure for Aanderaa optodes with a focus on glider oxygen measurements*. 6. EGO Meeting and Final Symposium of the COST Action ES0904, Kiel, Germany, 16/06/2014 - 17/06/2014.

[5] **Hahn, J.**, P. Brandt, R. J. Greatbatch, G. Krahlmann, and A. Körtzinger: *O<sub>2</sub> Variance and Meridional Oxygen Supply in the Tropical North East Atlantic Oxygen Minimum Zone*. Ocean Sciences Meeting 2014, Honolulu, Hawaii, USA, 23/02/2014 - 28/02/2014.

[4] **Hahn, J.**, T. Fischer, P. Brandt, R. J. Greatbatch, A. Körtzinger, T. Tanhua, M. Visbeck, D. Banyte, M. Dengler, and G. Krahlmann: *Oxygen Supply to the Tropical North East Atlantic Oxygen Minimum Zone*. Talk, SFB754 Colloquium, Kiel, Germany, 08/01/2014.

[3] Fischer, T., **J. Hahn**, P. Brandt, R. J. Greatbatch, A. Körtzinger, T. Tanhua, M. Visbeck, D. Banyte, M. Dengler, and G. Krahlmann: *Oxygen Supply to the Tropical North East Atlantic Oxygen Minimum Zone*. **Invited Talk**, IOW Colloquium, Rostock, Germany, 18/11/2013.

[2] **Hahn, J.**, P. Brandt, R. J. Greatbatch, G. Krahlmann, and A. Körtzinger: *Current and Oxygen Variability in the Tropical North East Atlantic*. Talk, TAV Meeting / PIRATA-18 Meeting, Venice, Italy, 22/10/2013 - 25/10/2013.

[1] **Hahn, J.**, P. Brandt, R. J. Greatbatch, G. Krahlmann, and A. Körtzinger: *O<sub>2</sub> variance and meridional O<sub>2</sub> supply in the Tropical North East Atlantic*. Talk, TAV Meeting / PIRATA-17 Meeting, Kiel, Germany, 10/09/2012 - 15/09/2012.

### **Poster contributions**

[4] **Hahn, J.**, P. Brandt, R. J. Greatbatch, G. Krahlmann, and A. Körtzinger: *Meso- to submesoscale O<sub>2</sub> Variability in the oxygen minimum zone of the eastern tropical North Atlantic*. EGU General Assembly 2015, Vienna, Austria, 12/04/2015 - 17/04/2015.

[3] **Hahn, J.**, P. Brandt, R. J. Greatbatch, G. Krahlmann, and A. Körtzinger: *O<sub>2</sub> Variability and*

*Meridional Oxygen Supply in the Tropical North East Atlantic Oxygen Minimum Zone.* EGU General Assembly 2013, Vienna, Austria, 07/04/2013 - 12/04/2013.

[2] **Hahn, J.**, P. Brandt, R. J. Greatbatch, A. Körtzinger, G. Krahnmann, and A. Funk: *O<sub>2</sub> variance at intermediate depth in the central tropical Atlantic along 23°W.* EGU General Assembly 2012, Vienna, Austria, 22/04/2012 - 27/04/2012.

[1] **Hahn, J.**, P. Brandt, A. Körtzinger, G. Krahnmann, J. Karstensen, M. Schlundt, A. Funk: *Mesoscale and Finescale Oxygen Variability at the Southern Edge of the Tropical North East Atlantic Ocean Oxygen Minimum Zone.* EUR-OCEANS Conference, Toulouse, France, 24/10/2011 - 26/10/2011.