

LEBENS LAUF

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The Earth system is amazing, better understanding it has been my driver for research and of sharing knowledge with the public. We are performing a planetary experiment through our greenhouse gas emissions and we need to act immediately. I would like to engage more in 'taking action' myself by entering the fields of sustainability, adaptability and mitigation while continuing contributing to the progress of science and its communication.

CURRENTLY: TAKING PART IN AN ADVANCE TRAINING

- Since Nov. 2020 **Project development Environment – Energy - Sustainability link**
Projektentwicklung Umwelt-Energie-Nachhaltigkeit, Akademie für Weiterbildung der Universität Bremen
12-month course + 3-month internship (60 ECTS), Bremen, Germany
- Applied Environmental Sciences
 - Environmental Law (German)
 - Environmental Sciences: Techniques and processes
 - Renewable Energies
 - Project development and management
 - Sustainability
 - Quality management and management systems in Energy, Environment and Sustainability

PROFESSIONAL EXPERIENCE

MULTIDISCIPLINARY MARINE SCIENTIST

- 2018-2019 **Researcher in the field of Paleoceanography and Paleoclimatology**
ALFRED-WEGENER-INSTITUT-Helmholtz Zentrum Für Polar und Meeresforschung, Bremerhaven, Germany
- 2010-2017 **Researcher in the field of Paleoceanography and Paleoclimatology**
MARUM-Center for Marine Environmental Sciences, Bremen, Germany
- Scientific publications, presentations, outreach activities
 - Project design and management, time management, budget management, acquiring third party funding
 - Laboratory work (processing of marine sediment cores, organic and inorganic geochemistry, micropaleontology), expeditions
 - Mentoring, teaching, member of PhD committees and colloquiums, postdoc representative
 - Organizing seminars, conferences and courses, reviewer for international magazines and entities
- May-Jun. 2010 **Freelancer Analyst**
- Sampling and processing of marine sediment cores, micropaleontology
- Mar.-Sep. 2009 **Fishing Observer in traditional fishing ships**
Spanish Institute of Oceanography (*Instituto Español de Oceanografía, IEO*) Málaga
- Documenting fishing capacity, length and weight of each catch, bycatch, watching seabirds and mammals, marking specimens
- Jul. 2008 **Collaboration in the project: Follow up of the Experience of Grey Water re-use in Sant Cugat**
Institute of Environmental Science and Technology, Autonomous University of Barcelona, Spain
(*Institut de Ciència y Tecnologia Ambientals, ICTA, Universitat Autònoma de Barcelona, UAB*)
- Personal interviews about the re-use of grey, pluvial or swimming pool waters
- 2003-2008 **Researcher in formation (PhD) in the field of Paleoceanography and Paleoclimatology**
PhD
2003-2004 at the University of Barcelona, 2005-2008 at the ICTA-UAB
- Scientific publications, presentations, outreach activities
 - Project management, time management
 - Laboratory work (processing of marine sediment cores, inorganic geochemistry, micropaleontology), expeditions
- Ag.-Dec. 2002 **Research Associate**
Coastal Research Laboratory (CORELAB), University of Kiel, Germany
- Calibration and validation of numerical coastal models, experiments in flow channel
- Mar. 2001 **Laboratory Work Student (Hiwi)**
- Jul. 2002 **Laboratory Work Student (Hiwi)**
Department of Paleoceanography, IFM-GEOMAR, Kiel, Germany
- Sampling and processing of marine sediment cores, micropaleontology, expeditions

FORMATION

Nov. 2010	Expert in Climate Change, Environmental Economy and Legislation Online course (270 h, 6 months), EUDE, European Business School, Madrid, Spain
Sept. 2008	PhD in Environmental Sciences (Paleoceanography and Paleoclimatology) , ICTA-UAB <i>Awarded with the European Doctorate Mention and with the Extraordinary Doctorate Award of the UAB</i> PhD Thesis, September 2008: Surface and Deep Circulation off South Africa: Agulhas Leakage Influence on the Meridional Overturning Circulation During the Last 345 kyr. Supervisor: Prof. Rainer Zahn
Oct. 2005	Master of Science (Diploma de Estudios Avanzados, DEA) . ICTA, UAB. Supervisor: Prof. Rainer Zahn Master Thesis (<i>Tesina</i>), July 2005: Deep Circulation off South Africa: Northern vs Southern Sources
Sept. 2002	Master of Science : Coastal Geosciences and Engineering Coastal Research Laboratory (CORELAB), University of Kiel, Germany Master Thesis, September 2002: Estimations of Scour Depth Around Offshore Wind Park Structures on the German Bight. Supervisor: Prof. Roberto Mayerle
June 2001	Bachelor : Marine Sciences. University of Vigo, Spain

ONGOING FURTHER FORMATION

Attendance of courses, seminars in expert and soft skills (54 since 1997). Selected:

9-12 Ag. 2021	Communicating Science! (<i>Wissenschaft kommunizieren!</i>), Summer School for early career researchers from Science and Communication. Online course, Wissenschaft in Dialog, Germany.
18, 20 May 2020	Science Communication Compact (<i>Wissenschaftskommunikation kompakt</i>). Online course, <i>Nationalen Instituts für Wissenschaftskommunikation</i> (NaWik), Germany.
28 Ap. 2018	Writing scientific stories, with writer in visit Jaspreeth Sign. Hansa Wissenschaftskolleg, Delmenhorst, Bremen, Germany (organized by myself in the context of the project 'Once Upon a Time... a Scientific Fairy Tale').
19 Ap. 2018	The Science-Policy interface at the international, intergovernmental level. MARUM, Bremen, Germany.
31 Aug.-1 Sep.17	Texts for the public (<i>Texten für die Öffentlichkeit</i>). University of Bremen, Germany.
4-6 Mar. 2013	Communicate your science. MARUM, Bremen, Germany.
25-26 Jan. 20 Mar. 12	Project management. MARUM, Bremen, Germany.
1-2 Nov. 2011	Conflict management. MARUM, Bremen, Germany.
5 Nov. 2009	Climate change, a challenge for human rights in the XXI century: beyond Copenhagen. Barcelona, Spain (<i>El canvi climàtic, un repte per als drets humans en el segle XXI: més enllà de Copenhagen</i>).
20 Ap. 2007	Polar regions and global warming (Training <i>Les regions Polars i l'escalfament global</i>). Barcelona, Spain.
14 Feb.-21 Mar. 06	Eleven key questions on climate change (<i>Onze questions clau en el canvi climatic</i>). Barcelona, Spain.
Mar. 1999	Global change (<i>Cambio global</i>). Vigo, Spain.

KNOWLEDGE TRANSFER: OUTREACH AND TEACHING

Sharing scientific knowledge through talks (2), essays (4), books with scientific stories (2), open-ship days (1), and reading events of stories with scientific content (organization and reading, 8). Assistant in field trips, training courses, supervising/mentoring students. Selected:

- **Co-coordination of the Project: 'Once Upon a Time... a Scientific Fairy Tale'**. [link](#)
- **Reading of the story 'Die Bremer Stadtmusikanten lichten den Anker'** followed by discussion with the public about global warming and sea level rise within the outreach initiative 'Science goes Public', Bremerhaven March 2019, Bremen 2018.
- **Reading for children: 'Once Upon a Time... Scientific Fairy Tales about the Oceans'**. Organization, in collaboration with *Instituto Cervantes* and *Haus der Wissenschaft* (Bremen), of the event '*Lesung für kinder. Es war einmal... Wissenschaftliche Kurzgeschichten zum Thema Ozeane*'. Haus der Wissenschaft, Bremen, April 2018.
- **Scientific Career in a Foreign Country. Research in MARUM** (*Carrea científica y experiencia en el extranjero. Investigar en MARUM*). Talk at the closing ceremony scholar year 2011/2012 at the high school *Carmen y Severo Ochoa de Albornoz*, Luarca (Spain), July 2012.
- **Foraminifera: those little witnesses of the past** (*Foraminíferos: esos pequeños testigos del pasado*). Essay in Almuña's Local Magazine (Asturias, Spain), July 2012.
- **Co-supervision** (with Dr Ricardo de Pol-Holz) **of the master student** Dharma Reyes-Macaya, University of Concepción, Chile. Thesis: 'Intermediate and deep-water mass distribution in the Southeast Pacific during the late Pleistocene and the Holocene' (2013-2015).
- **Supervision of the MARUM Summer Student**: Itxaso Ruiz Uriarte. Summer Project: 'Estimating the size effect on the isotopic composition of epibenthic foraminifera', MARUM, Bremen, June-August 2012.
- Teaching core description: 'Virtual Ship' in **ECORD Summer Schools**, 2013 and 2014 and **ECORD Training Course** 2015.

OTHER ACTIVITIES

Organizing 2 courses in the framework of the outreach project 'Once upon a time... a scientific fairy tale', co-organizing 2 of the Excellence Cluster Early Career Scientists Conferences, member of 4 thesis colloquia and 3 thesis committees, peer reviewer for several international journals and for sections of the IPCC AR6 report, postdoc representative, trainer of laboratory work students. Selected:

- Vicepresident (since Dec. 2021) and treasury (since Oc. 2020) of the Spanish association of researchers in Germany **CERFA** (*Asociación de Científicos Españoles en la República Federal Alemana*).
- Member of Scientist for Future (**S4F**).
- Organizing the course: 'The science of stories', with José Paniagua and Marcela Guarnizo in collaboration with the *Instituto Cervantes de Bremen*. Bremen, Germany (planned for the 12th of June, delayed till September due to COVID-19).
- Member of the scientific and organizing committee of the 5th (2014) and 6th (2015) Early Career Scientists Conference for Marine and Climate Research. 21-24 Sep. 2014, Bremen und 05-08 Oct. 2015, Kiel.
- MARUM postdoc representative with Dr Aline Govin, Aug. 2012-Oct. 2013.
- Reviewer for Nature Geosciences, Earth and Planetary Science Letters, Paleoceanography and Paleoclimatology, sections of the 6th report of the International Panel for Climate Change (IPCC report AR6).

FIELD EXPERIENCE

Participation in 9 paleoceanographic and oceanographic expeditions (in the Atlantic, Pacific and Indian Oceans), 1 expedition with educational purposes (Kieler Fjord), 3 field trips with educational purposes (2 Barbados; 1 Rügen, Germany), sailing 7 months as fishing observer, 1 sampling campaign with diving suit in the Mediterranean. Selected:

- **Ancient Reefs up Close**, assistant in the field trip for Columbia University Students, Barbados, 9-16 Jan. 16.
- **RV Maria S. Merian (Germany)**. Expedition MSM44, Nuuk-Nuuk (Greenland), 29 Jun.-30 Jul. 15.
- **Geology of Rügen**, assistant in the field trip for University of Bremen students, Rügen (Germany), 08-12 Sep. 2014.
- **RV Sonne (Germany)**. Expedition SO211, Valparaíso-Valparaíso (Chile), 02 Nov.-29 Nov. 10.
- **RV Charles Darwin (United Kingdom)**. Expedition CD154: Durban - Cape Town (South Africa), 13 Dec.03-10 Jan.04.

AWARDS AND GRANTS

4 awards related to formation stages, 1 for an outreach project; 7 grants related to research, 1 for outreach, 3 scholarships for participating in conferences and 2 for stays in a foreign country. Selected:

- German Research Foundation (*Deutsche Forschungsgemeinschaft, DFG*) own position grant (2015-2017).
- Outstanding Student Paper Award (talk, total awarded 8) at the 2008 AGU Fall Meeting, San Francisco.
- Student Poster Prize at the 8th International Conference on Paleoceanography (ICP8) (total awarded 3), Biarritz France, Sep. 2004.
- Glamour Scholarship for young scientific women (6000 Euros), Ap.-Jun. 2008.
- Grant from the Spanish Ministry of Education and Science for a 5-month stay at Oxford University, UK, Aug.-Dec. 2005.
- FPI PhD Scholarship from the Spanish Ministry of Education and Science, May 2003-Apr. 2007.
- Erasmus Scholarship for studies at the University of Kiel, Germany, Oct. 2000-Jun. 2001.

IT

- MS Office
- Graphic-programs (Corel, Adobe, InDesign)
- Web Design (with Web builder)
- Ocean Data View
- Paleo Data View
- Origin
- Grapher
- Analyseries

LANGUAGES

- **Spanish:** Mother tongue
 - **English:** Speaking, understanding, writing and reading proficiency.
 - **German:** Speaking and understanding good, reading fair, writing regular.
 - **Catalan:** Understanding and reading very good, speaking fair, writing regular.
 - **Galician:** Understanding and reading very good, speaking fair, writing regular.
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ANNEX

EXAMPLES OF COMMUNICATING RESULTS AND KNOWLEDGE

PAPERS Peer-review 4 as 1st author, 11 as co-author; Essays 4 as 1st author, 2 as co-author; contribution to 6 expedition reports. Selected

- 2021 Isotopic characterization of water masses in the Southeast Pacific region: Paleoceanographic implications. Reyes-Macaya, D., Hoogakker, B., **Martínez-Méndez, G.**, Llanillo, P., Grasse, P., Mohtadi, M., Mix, A., Leng, M.J., Struck, U., McCorckle, D., Troncoso, M., Gayo, E.M., Lange, C.B., Farias, L., Carhuapoma, W., Graco, M., Cornejo-D'Ottone, M., De Pol Holz, R., Fernandez, C., Narvaez, D., Vargas, Cr.A., García-Araya, F., Hebbeln, D., JGR Oceans, doi.org/10.1029/2021JC017525.
- 2019 Precessional changes of the South Pacific subtropical jet over the past 1 million years. Lamy, F., Chiang, J.C.H., **Martínez-Méndez, G.**, Thierens, M., Arz, H.W., Bosmans, J.H.C., Hebbeln, D., Lambert, F., Stuut, J.-B. PNAS, vol. 117 no 45, doi.org/10.1073/pnas.1905847116.
- 2017 Calibration of the Carbon Isotope Composition ($\delta^{13}\text{C}$) of Benthic Foraminifera, Schmittner, A., Bostock, H.C., Curry, W.B., Galbraith, E.D., Gottschalk, J., Herguera, J.C., Hoogakker, B., Jaccard, S., Lisiecki, L.E., Lund, D.C., **Martínez-Méndez, G.**, Lynch-Stieglitz, J., Mackensen, A., Michel, E., Mix, A.C., Oppo, D.W., Peterson, C.D., Repschläger, J., Sikes, E.L., Spero, H.J., Waelbroeck, C. Paleoceanography, 32, doi:10.1002/2016PA003072.
- 2017 Workshop Report, 2nd OC3 Meeting, Corvallis, USA, 27-29 June 2017. Regional carbon isotope syntheses from the last deglaciation. Schmittner, A., **Martínez-Méndez, G.**, Mix, A., Repschläger, J. PAGES magazine, vol. 25, No 3, 154.
- 2013 Changes in the advection of Antarctic Intermediate Water to the northern Chilean coast during the past 970 kyr. **Martínez-Méndez, G.**, Hebbeln, D., Mohtadi, M., Lamy, F., De Pol-Holz, R., Reyes-Macaya, D., Freudenthal, T. Paleoceanography, 28, doi:10.1002/palo.20047.
- 2010 Reversed flow of Atlantic Deep Water during the Last Glacial Maximum. Negre, C. Zahn, R., Thomas, A., Masqué, P., Henderson, G., **Martínez-Méndez, G.**, Hall, I., Mas, J.L. et al. Nature, 468, 84-88.
- 2010 The Agulhas Current (*La Corriente de Agulhas*). *Investigación y Ciencia* (Spanish Edition of Scientific America). **Martínez-Méndez G.** Invited, April 2010.
- 2009 Variable Water Column Structure of the South Atlantic on Glacial-Interglacial Time Scales. **Martínez-Méndez G.**, Molyneux, E., Hall, I.R., Zahn, R. Quaternary Science Reviews, 28, 3379–3387.
- 2008 345,000-Year-Long Multi-Proxy Records off South Africa Document Variable Contributions of Northern versus Southern Component Water to the Deep South Atlantic. **Martínez-Méndez, G.**, Zahn, R., Hall, I.R., Pena, L.D., Cacho, I. Earth and Planetary Science Letters, 267, 309-321.

ORAL PRESENTATIONS 16 talks held at international conferences, in seminars or for the public; co-author in 9 talks. Selected:

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| Jun. 2017, 2 nd Workshop PAGES Working group OC3 Corvallis, USA | Last deglacial planktic and benthic foraminifera $\delta^{13}\text{C}$ records from the Southeast and Western Equatorial Pacific. Martínez-Méndez, G. et al. |
| Oct. 2015, 6 th Early Career Scientists Conference for Marine and Climate Research. Kiel, Germany | Is the deep Pacific a reservoir of atmospheric CO ₂ during glacials? Old-School talk. Martínez-Méndez, G. et al. |
| Sep. 2015, Invited seminar at the University of Concepción Concepción, Chile | Views from the Southern Ocean about the General Ocean Circulation: paleoceanographic records from the 'Warm and Cold' Water Routes. Martínez-Méndez, G. |
| Feb. 2013, 4 th PAGES Open Science Meeting. The Past: A Compass for Future Earth. Goa, India | Increase proportion of Antarctic Intermediate Water off Northern Chile (27.5°S) in Glacial Periods Over the Past Million Years. Martínez-Méndez, G. et al. |
| Dec. 2008, American Geophysical Union (AGU) Fall Meeting. San Francisco, USA
Recipient of an Outstanding Student Paper Award | Influence of Agulhas Leakage on the Meridional Overturning Circulation (MOC): Insights From Paired Planktonic and Benthic Foraminifera Stable Isotope and Trace Metal Analyses Over the Last 345 kyr. Martínez-Méndez, G. et al. |
| Ap. 2005, European Geophysical Union General Assembly Vienna, Austria | Deep Circulation off South Africa: Northern vs Southern Hemisphere Sources. Martínez-Méndez, G. et al. |

POSTERS 15 posters as 1st author at international conferences, 16 as co-author. Selected:

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| Dec. 2017, AGU Fall Meeting New Orleans, USA | Did Antarctic Intermediate Water in the Southeast Pacific expanded vertically or only deepened? Martínez-Méndez, G. et al. |
| Dec. 2017, AGU Fall Meeting New Orleans, USA | Once Upon a Time... A Scientific Fairy Tale (outreach poster). Martínez-Méndez, G. and OUAT Team |
| Dec. 2014, AGU Fall Meeting San Francisco, USA | Searching for the conduit waters of old glacial carbon: deglacial intermediate to deepwater records from the western sub-equatorial Pacific. Martínez-Méndez, G. et al. |
| Sep. 2013, 11 th International Conference on Paleoceanography (ICP11), Sitges, Spain | Changes in the upper water-column stratification off northern Chile (27.5°S) during the past ca 1 Ma. Martínez-Méndez, G. et al. |
| Sep. 2013, ICP11, Sitges, Spain
Student Poster Prize to D. Reyes-Macaya | Water mass distribution during the last glacial-interglacial transition and late Holocene in the Eastern South Pacific. Reyes-Macaya, D., De Pol-Holz, R., Mohtadi, M., Martínez-Méndez, G. |
| Sep. 2007, ICP9 Shanghai, China | Deep Water Circulation of the South Atlantic During the Last 345 kyr: Northern vs Southern Sources. Martínez-Méndez, G. et al. |
| Sep. 2004, ICP8, Biarritz, France
Student Poster Prize | Multi-Centennial Benthic-Planktonic Isotope and Flow-Speed Records From the Agulhas Corridor. Martínez-Méndez, G., et al. |