

New project ideas, Coordination Workshop 2021, SPP 1158 "Antarctic Research"

| Discipline | Applicants | Contact email | Project title |
|-----------------------------|--|-----------------------------------|--|
| Atmosphere & Sea | | | |
| 1 | T. Albrecht & R. Winkelmann | albrecht(at)pik-potsdam.de | Tipping elements in the earth system |
| 2 | S. Arndt | Stefanie.Arndt(at)awi.de | Why Antarctic sea ice does not shrink compared to the Arctic? |
| 3 | M. Braun & M. Rückamp | matthias.h.braun(at)fau.de | Climate sensitivity of western Antarctica ice shelves |
| 4 | O. Huhn | ohuhn(at)uni-bremen.de | Ocean-ice shelf-sea ice interaction |
| 5 | L. Istomina, G. Spreen, G. Heygster, C. Melsheimer, C. Haas et al. | larysa.istomina(at)awi.de | REASSESS – Recent Antarctic sea ice surface melt from satellite remote sensing → <u>Fortsetzungsantrag</u> |
| 6 | V. Ludwig, S. Kern, D. Notz, T. Schlick, & D. Stammer | vludwig(at)uni-bremen.de | Using a multi-frequency helicopter-borne scatterometer in the polar domain |
| 7 | S. Paul & S. Willmes | willmes(at)uni-trier.de | High-resolution wintertime sea-ice dynamics from long-term TIR satellite imagery |
| 8 | I. Peeken, Löder & Laforsch | ilka.peeken(at)awi.de | Microplastic as a tracer for anthropogenic foot prints in archived sea ice cores |
| 9 | T. Schultz, R. Müller & A. Humbert | tschultz(at)rhrk.uni-kl.de | SolidFIDEMO - A firn densification model for volumetric mass balances → <u>Fortsetzungsantrag</u> |
| 10 | C. Schwarz, J. Schröder & R. Niekamp | carina.schwarz(at)uni-due.de | Least-squares finite element methods for sea ice dynamics on large scales in the Southern Ocean |
| 11 | A. Wernecke & D. Notz | andreas.wernecke(at)mpimet.mpg.de | Making passive microwave sea-ice concentrations (SIC) uncertainties available to a larger user base |

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| 12 | C. Wild & R. Drews | reinhard.drews(at)uni-tuebingen.de | Slipping or Shearing in the margins of outlet glaciers in Antarctica |
| Biology | | | |
| 1 | A. Beck & C. Printzen | Beck(at)snsb.de | Effects of natural and human disturbances on the genetic diversity of Antarctic lichen populations |
| 2 | D. Di Franco, H. Saeedi & A. Brandt | davide.di-franco(at)senckenberg.de | Investigating Southern Ocean Patterns of Diversity (ISOPOD) |
| 3 | M.W. Friedrich | michael.friedrich(at)uni-bremen.de | Environmental controls of iron-reducing microorganisms in Antarctic marine sediments: ECIMAS-2 → Fortsetzungsantrag |
| 4 | J. Hoffman | joseph.hoffman(at)uni-bielefeld.de | Understanding host-microbe interactions in a changing world: drivers and fitness consequences of the gut microbiota in a declining Antarctic pinniped |
| 5 | K. Lehnert & U. Siebert | Kristina.Lehnert(at)tiho-hannover.de | Establishing biomarkers for wildlife health: Polar pinnipeds as indicators for ecosystem integrity |
| 6 | J.F. Masello | juan.f.masello(at)bio.uni-giessen.de | What drives the enigmatic radiation of the Southern Ocean storm-petrels? |
| 7 | N.-C. Pauli & M. Iversen | npauli(at)awi.de | Elucidate lipid-carbon flux (ELICA) |
| 8 | P. Quillfeldt | Petra.Quillfeldt(at)bio.uni-giessen.de | Foraging and movement ecology of two sympatric Antarctic storm-petrels |
| 9 | U. Siebert, K. Lehnert, J. Baltzer & Nachtsheim | Ursula.Siebert(at)tiho-hannover.de | Investigations on the behavioral and acoustic responses of cetaceans towards seismic surveys in the Antarctic |
| 10 | S. Trimborn & B. Koch | scarlett.trimborn(at)awi.de | Quantifying the iron bioavailability of grazer's defecation products to phytoplankton and their effects on southern ocean phytoplankton productivity |
| 11 | G. Verhaegen | gerlienverhaegen(at)hotmail.com | Integrative study of Southern Ocean gelatinous zooplankton using genetics, optics and modelling |

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| 12 | F. Wermter | fwermtter(at)uni-bremen.de | Energy reserves of Antarctic fish in times of climate change: an MRI/MRS approach |
| 13 | G. Witt & M. Brenner | Matthias.Brenner(at)awi.de | Record Recording the baseline before the change: First steps towards an integrated biological pollution and effects assessment off Dronning Maud Land |
| 14 | Y. Ye | Ying.Ye(at)awi.de | Insights into the Southern Ocean biological carbon pump in response to changing iron supply |
| Geology | | | |
| 1 | J. Ebbing & M. Lösing | Joerg.Ebbing(at)ifg.uni-kiel.de | Uncertainty analyses of heat flow models and implications for ice sheet dynamics – Antarctic Heat 2 → Fortsetzungsantrag |
| 2 | C. Ehlert & S. Henkel | claudia.ehlert(at)uol.de | Nutrient sources and cycling in the Weddell Sea and their sensitivity and feedbacks under changing climate |
| 3 | C. Hübscher & K. Gohl | Christian.huebscher(at)uni-hamburg.de | Glacio-tectonic reactivation as indicator for West Antarctic ice sheet advance and retreat |
| 4 | D.K. Kulhanek, J.P. Klages & J. Müller | denise.kulhanek(at)ifg.uni-kiel.de | SWAIS 2C – Sensitivity of the West Antarctic ice sheet to 2 Degrees Celsius |
| 5 | F. Lisker, A. Läufer & N. Koglin | flisker(at)uni-bremen.de | SWAIS 2C - Provenance |
| 6 | T. Seehaus, D. Farias & M. Braun | thorsten.seehaus(at)fau.de | Long-term analysis of glacier mass changes on the Antarctic Peninsula by aerial imagery and InSAR data |