HEIBRIDS
HELMHOLTZ EINSTEIN INTERNATIONAL
BERLIN RESEARCH SCHOOL IN DATA SCIENCE

NEWS

Issue 26
December 2021

"A Happy, Healthy and Prosperous 2022"

- The HEIBRiDS Management Team

Latest Highlights

New Publications

- W. J. Foster, G. Ayzel, J. Münchmeyer, T. Rettelbach, N. Kitzmann, T. T. Isson, M. Mutti, and M. Aberhan (2021). **Machine learning identifies ecological selectivity patterns across the end-Permian mass extinction.** *Accepted for publication in Paleobiology*.

- L. Weber, S. Garda, J. Münchmeyer, and U. Leser (2021). **Extend, don't rebuild: Phrasing conditional graph modification as autoregressive sequence labelling.** *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing, 1213–1224*.

- I. Daniel, J. Pesantez, S. Letzgus, M. A. Khaksar Fasee, F. Alghamdi, E. Berglund, G. Mahinthakumar, and A. Cominola, (2022). **A sequential pressure-based algorithm for data-driven Leakage Identification and model-based Localization in water distribution networks.** Accepted in the *Journal of Water Resources Planning and Management.* DOI:10.1061/(ASCE)WR.1943-5452.0001535

- J.* Münchmeyer, J.* Woollam, F. Tilmann, A. Rietbrock, D. Lange, T. Bornstein, T. Diehl, C. Giunchi, F. Haslinger, D. Jozinović, A. Michelini, J. Saul, and H. Soto (2021). **Which picker fits my data? A quantitative evaluation of deep learning based seismic pickers.** *Journal of Geophysical Research: Solid Earth.* (accepted) *Equal contribution

- J.* Woollam, J.* Münchmeyer, F. Tilmann, A. Rietbrock, D. Lange, T. Bornstein, T. Diehl, C. Giunchi, F. Haslinger, D. Jozinović, A. Michelini, J. Saul, and H. Soto (2021). **SeisBench - A Toolbox for Machine Learning in Seismology.** https://arxiv.org/abs/2111.00786 [Preprint] *Equal contribution

- K. Styp-Rekowski, C. Stolle, I. Michaelis, and O. Kao (2021). **Calibration of the GRACE-FO Satellite Platform Magnetometers and Co-Estimation of Intrinsic Time Shift in Data.** Accepted for publication in *Proceedings of the IEEE International Conference on Big Data 2021.*

- G. Pfalz, B. Diekmann, J.-C. Freytag, L. Sryrkh, D.A. Subetto, and B.K. Biskaborn (2021). **Improving age-depth correlations by using the LANDO model**

ensemble. *Geochronology Discuss.* https://doi.org/10.5194/gchron-2021-40 [Preprint]

- S. Baunsgaard, M. Boehm, A. Chaudhary, B. Derakhshan, S. Geißelsöder, P. M. Grulich, M. Hildebrand, K. Innerebner, V. Markl, C. Neubauer, S. Osterburg, O. Ovcharenko, <u>S. Redyuk</u>, T. Rieger, A. R. Mahdiraji, S. B. Wrede, S. Zeuch (2021). **ExDRa: Exploratory Data Science on Federated Raw Data.** *Proceedings of the 2021 International Conference on Management of Data*, 2450-2463.

- ∗ HEIBRiDS PI **Heidi Kreibich** mentioned HEIBRiDS as a good example for interdisciplinary education in her recent <u>Correspondence in NATURE Sustainability</u>.

Conferences

- <u>T. Rettelbach</u>, M. Langer, I. Nitze, B. Jones, V. Helm, J-Ch. Freytag, and G. Grosse. **Evaluating the Effects of Tundra Fires on Soil Microtopography and Hydrologic Surface Networks in Polygonal Permafrost Landscapes.** (Oral presentation), *AGU Fall Meeting* & New Orleans, USA, Online, 13-17 December 2021.
- <u>J. Münchmeyer</u>, U. Leser, and F. Tilmann. **A probabilistic view of earthquake rupture predictability.** (Oral presentation), *AGU Fall Meeting,* Online & New Orleans, USA, 13-17 December 2021.
- <u>S. Saran</u>, M. Ghanbari and U. Ohler. **An Empirical Analysis of Uncertainty Estimation in Genomics Applications.** (Workshop paper), *Bayesian Deep Learning Workshop, NeurIPS 2021*, Online, 14 December 2021.
- <u>S. Saran</u>, M. Ghanbari and U. Ohler. **Similarity Neural Networks for RBP Binding Site Detection** (Workshop poster), *Learning Meaningful Representations of Life workshop, NeurIPS 2021,* Online, 14 December 2021.
- <u>N. Veigel</u>, H. Kreibich, and A. Cominola. **Mining Flood Insurance Big Data to Incorporate Behavioural and Social Aspects in Flood Risk Modelling** (Poster presentation), *AGU Fall Meeting*, Online & New Orleans, 13–17 Dec 2021, SY55D-0390

Announcements / Upcoming Events

Changes in the HEIBRiDS Office

Save the dates:
- HEIBRiDS Spring School, March 28-31
- HEIBRiDS Online PhD Interview Week, April 4-6

Nina Reinecke will leave the HEIBRiDS Management team and will start at <u>CODE University of Applied Sciences</u> as early as February. Until a new coordinator for the university activities within HEIBRiDS has been found, Eirini Kouskoumvekaki will be the main point of contact for all administrative matters. We thank Nina for the time she spent with us and we wish her all the best in her new position.

HIDA Annual Conference

Via this <u>link</u>, you can now watch, or re-watch **the exiting keynote of Neil Chue Hong**, which he gave at the HIDA Annual Conference on November 30. Neil Chue Hong is Director and Principal Investigator at the <u>Software Sustainability Institute</u>,

University of Edinburgh. The title of his keynote is "Doing science in the Digital Age (a personal journey as a data explorer)".

Helmholtz Research Data Repositories

The Helmholtz Open Science Office has been actively involved in the operation of re3data - Registry of Research Data Repositories since 2012. This global service offers researchers, funding organizations, and other stakeholders an overview of digital research infrastructures for making research data accessible. As of August 2021, the directory lists over 2,700 repositories, databases, and portals. Since January 2020, the registry is being further developed as part of the DFG project re3data COREF. This list documents the research data repositories and portals in the Helmholtz Association. Further information can be found in the re3data registry.

Training offers from our partners

- Training offers from the **Humboldt Graduate School** and the **Dahlem Research School** can be found here and here. For registration, please follow the registration link for each individual workshop.
- Training offers from **HIDA,** our sister-schools **HIDSS** and **HIFIS** can be found here, here and here.
- The Lecture Series of our partner FONDA is taking place every **Tuesday from 14:00 to 15:00**. You can find the schedule here.

HEIBRiDS PhD Recruitment

The Call for the 8 new HEIBRiDS PhD positions will open on **January 10**. The deadline for applications will be **February 14**.