

*“Wishing you a season full of joy, clean datasets, and perfectly fitted models.*

*Happy Holidays and a Data-driven  
New Year! 🎄📊✨*

- ChatGPT 4o



## Latest Highlights

## New Publications and Preprints

- H. Stolte, J. Sinapius, I. Sadeh, E. Pueschel, M. Weidlich, and D. Berge (2024). **Early Detection of Multiwavelength Blazar Variability.** *arXiv*. <https://doi.org/10.48550/arXiv.2411.10140> [Preprint]
- D. Collin, Y. Shprits, S.J. Hofmeister, S. Bianco, and G. Gallego (2024). **Forecasting High-Speed Solar Wind Streams from Solar Images.** *arXiv*. <https://doi.org/10.48550/arXiv.2410.05068> [Preprint] [Accepted in Space Weather]
- J. Schaible, H. Winarto, V. Škorjanc, D. Yoo, L. Zimmermann, K. Jäger, I. Sekulic, P.-I. Schneider, S. Burger, A. Wessels, B. Bläsi, and C. Becker (2024). **Optimizing Aesthetic Appearance of Perovskite Solar Cells Using Color Filters.** *Solar RRL*. <https://doi.org/10.1002/solr.202400627>
- A. Kapp, E. Hoffmann, E. Weigmann, and H. Mihaljević (2024). **SurfaceAI: Automated creation of cohesive road surface quality datasets based on open street-level imagery.** In *Proceedings of the 2nd ACM SIGSPATIAL International Workshop on Advances in Urban-AI*. <https://doi.org/10.1145/3681780.3697277>

## Conferences

- D. Collin, Y. Shprits, S. Bianco, S. Hofmeister, and G. Gallego. **Using Distributional Regression to Improve Solar Wind Speed Forecasting from Solar Images.** (Oral presentation), *European Space Weather Week*, Coimbra, Portugal, 4-8 Nov 2024.

## New HEIBRiDS faces

**Dana Wehner** is a new associated HEIBRiDS doctoral researcher, working on the project "Machine Learning-assisted Elucidation of Chemical Glycosylation Reactions" and supervised by Kevin Pagel at the FU-Berlin. Welcome Dana!

## PhD Dissertations

Associated HEIBRiDS doctoral researchers **Rui Li** and **Alexandra Kapp** successfully defended their PhD projects on July 5 and December 9, respectively. Congratulations to both and we wish them all the best in their future career endeavors!

## HEIBRiDS 6-year anniversary celebration

On **December 5**, we celebrated at the ECDF six successful years of HEIBRiDS. The event featured short talks reflecting on the past, present, and future of HEIBRiDS, a poster session highlighting various HEIBRiDS projects, and an insightful panel discussion on the role of data science in the scientific landscape of Berlin. The celebration was enriched with great food and music, creating a lively and engaging atmosphere.

This event also marked a significant milestone: the transition of HEIBRiDS into its new, permanent phase starting in January 2025. With this transition, BIFOLD will replace ECDF as the university partner of HEIBRiDS. We would like to take this opportunity to extend our heartfelt gratitude to ECDF for the fruitful collaboration since 2018, and especially to **Guillermo Gallego** and **Sandra Pravica** for their dedicated efforts as spokesperson and program coordinator, respectively, on behalf of the university partners.



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## Announcements

### PhD Dissertations

HEIBRiDS doctoral researcher **Tabea Rettelbach**, will defend her PhD project “Leveraging computer vision on Earth observation data for quantifying Arctic permafrost landscape characteristics” on **January 13 at 15:00**. The defense will take place in room 2.14.018 at the University of Potsdam.

### HEIBRiDS PhD Seminar and Lectures

Starting in January 2025, the HEIBRiDS PhD Seminar and Lecture Series will be held at MDC-Mitte (aka BIMSB, Hannoverschestr. 28). The first event will take place on **January 15**, featuring a PhD seminar by **Mark Melzer** and a lecture by **Nadja Klein**.