HEIBRIDS
HELMHOLTZ EINSTEIN INTERNATIONAL
BERLIN RESEARCH SCHOOL IN DATA SCIENCE

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NEWS

"Learning data science is like going to the gym, you only benefit if you do it consistently."

- Moez Ali, Data Scientist and creator of PyCaret

Latest Highlights

New Publications and Preprints

- C. Utama, C. Meske, J. Schneider, and C. Ulbrich (2022). **Reactive power control in photovoltaic systems through (explainable) artificial intelligence.** *Applied Energy*, 328. https://doi.org/10.1016/j.apenergy.2022.120004
- C. Utama, B. Karg, C. Meske, and S. Lucia (2022). **Explainable artificial intelligence for deep learning-based model predictive controllers.** *In Proceedings of the 26th International Conference on System Theory, Control and Computing (ICSTCC)*.

Recent Presentations at Conferences

- P. Graniero, G.A.F. Basulto, R. Schlatmann, R. Klenk, C. Ulbrich. **Online Implementation of a Multiple Linear Regression Model for CIGS Photovoltaic Module Performance.** (Poster presentation), *8th World Conference on Photovoltaic Energy Conversion (WCPEC-8),* Milan, Italy, 26-30 September 2022.
- C. Utama, C. Meske, J. Schneider, and C. Ulbrich. **Reactive power control in photovoltaic systems through (explainable) artificial intelligence.** (Poster presentation), *8th World Conference on Photovoltaic Energy Conversion (WCPEC-8)*, Milan, Italy, 26-30 September 2022.
- C. Utama, B. Karg, C. Meske, and S. Lucia. **Explainable artificial intelligence for deep learning-based model predictive controllers.** (Oral presentation), *26th International Conference on System Theory, Control and Computing (ICSTCC)*, Online, 19-21 October 2022.

HEIBRiDS midterm evaluation

HEIBRiDS underwent a successful mid-term evaluation on **13-14 October**. The initial feedback from the review panel was that HEIBRiDS has been true to its mission of educating young researchers on the interface of data science and domain expertise. The continuation of the school was strongly recommended and the full review report is expected to

be finalized in the next weeks. We thank once again everyone in HEIBRiDS for their support and contributions.

New HEIBRiDS faces

Four more PhD students from the new cohort joined HEIBRiDS this month:

- **Daniel Collin** will be working on the project: “Predicting geomagnetic conditions on the Earth from multi-spectral images of the Sun by combining data science and physical models”, supervised by Yuri Shprits (GFZ) and Guillermo Gallego (TU).
- **Daniel León Periñán** will be working on the project: “Towards molecular digital pathology: leveraging spatial transcriptomics and deep learning to predict gene expression from tissue morphology in solid tumors”, supervised by Nikolaus Rajewski (MDC), Klaus-Robert Müller (TU) and Frederik Klauschen (Charité).
- **Abhay Mehta** will be working on the project: “Context awareness in real-time image classification for ground-based gamma-ray telescopes”, supervised by David Berge (DESY) and Matthias Weidlich (HU).
- **Jonas Schaible** will be working on the project: “Data-driven performance optimization of coloured and textured solar modules”, supervised by Christiane Becker (HZB), Christof Schütte (FU) and Sven Burger (ZIB)

On **October 19** we held the Orientation Session for the new cohort and shot this nice group photo.

We wish you all a great start!

Announcements

BUA Lecture Series “Open Science and Research Quality”

We would like to draw your attention to the BUA lecture series **"Open Science and Research Quality"** in the winter semester 2022/23. The lectures take place **every Monday at 14:00** in digital or hybrid format and is also aimed at BUA doctoral students. You can find further information and the detailed program of the lecture series here and here.

HIDA Lecture @ MarDATA

The next HIDA lecture is organized in collaboration with our sister school MarDATA. It will take place on **November 10, 2022 at 15:30**, where A. Murat Eren (Meren) from the Helmholtz Institute for Functional Marine Biodiversity (HIFMB) will talk about **"The era of high-resolution, integrated multi-omics: disturbingly complex and beautifully unique displays of the ecology and evolution of marine microbial life"**. You can read the abstract and register to the event here.