HEIBRIDS
HELMHOLTZ International Berlin Research School in Data Science

NEWS / 51
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NEWSLETTER

Science, skills & a growing community

Since our last newsletter, HEIBRiDS doctoral researchers have been sharing their work at conferences, building international collaborations and heading into the field. We have also completed a new recruitment round and come together in Potsdam for our annual symposium & retreat with scientific exchange, skills development and time to connect.

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Five new doctoral researchers starting 2027

We have finished the recruitment end of September 2026 and our sixth cohort is scheduled to start in January 2027, with five selected doctoral researchers across HZB (one position), GFZ (two) and MDC (two). Their projects connect AI and data science with energy, geosciences and molecular medicine.

HZB	Machine-learning-enhanced multiphysics optimisation of flexible photovoltaics	Prof. Dr. Christiane Becker and Prof. Dr. Christof Schuette
GFZ	HYFIRE: foundation models and causal inference for multi-hazard early warning and response	Prof. Dr. Fabrice Cotton and Prof. Dr. Tomas Fernandez-Steeger
GFZ	Earth intelligence: AI agents tracking critical land changes worldwide	Prof. Dr. Martin Herold and Prof. Dr. Begüm Demir
MDC	Interpretation-guided approaches to generative regulatory DNA design	Prof. Dr. Uwe Ohler and Prof. Dr. Grégoire Montavon
MDC	Explainable multiscale AI for titin-dependent diastolic dysfunction and therapy response	Prof. Dr. Michael Gotthardt and Prof. Dr. Alexander Meyer

Thank you to all supervisors, panel members and colleagues who contributed to the selection process. We look forward to welcoming our new doctoral researchers!

STRENGTHENING CONNECTIONS

Joint events between HEIBRiDS and BIFOLD and regular interdisciplinary meetings for 2027 are under discussion. More details to come soon!

If you wish to have your news included in the next Newsletter, please contact Koliane at koliane.ouk@mdc-berlin.de or HEIBRIDS@mdc-berlin.de.

You can also follow and tag HEIBRiDS on LinkedIn.

RETREAT & SYMPOSIUM

30 September - 2 October 2026 | Potsdam



Together in Potsdam: HEIBRiDS doctoral researchers, supervisors and colleagues.

From 30 September to 2 October, doctoral researchers, supervisors and facilitators came together in Potsdam for the HEIBRiDS Symposium & Retreat 2026. The programme combined scientific exchange, practical learning and time to connect beyond individual projects and institutions.

Discovering research beyond our own disciplines

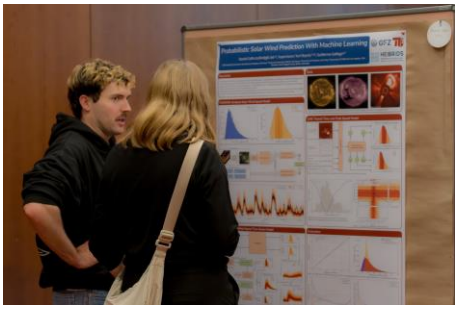
Doctoral presentations, group-leader talks and a poster session opened up perspectives across biomedical research, energy, Earth sciences and artificial intelligence. Contributions from MDC, HZB, GFZ, AWI, DESY, TU Berlin and BIFOLD made the scientific day a genuinely interdisciplinary exchange. The Supervisors' Discussion & Consortium Planning session also looked ahead to the programme's development.



Doctoral presentations



Poster discussions



Scientific exchange

CELEBRATING OUR BEST POSTER AWARD WINNERS

1st Prize | Claudia Winklmayr

MDC | HEIBRiDS associate

"What even is 'good uncertainty'?"

How model architecture and pretraining influence uncertainty in image segmentation.

2nd Prize | Carl Stadie

AWI

"Fantastic Deposits and How to Find Them"

Bayesian evaluation of deep-learning models and sensor modalities for mapping Arctic driftwood.

Congratulations to both winners!

SKILLS & CONNECTIONS

HEIBRiDS Symposium & Retreat 2026 | Learning and connecting together

Learning by doing: data science workshop



In “Building Your First Prototype with an AI Coding Agent,” the Helmholtz AI team guided participants in developing small software prototypes while exploring the tools’ possibilities and limitations.

Workshops with Lirone Glikman complemented the technical programme with personal branding for career growth and strategic networking.

Making time to connect

Team building activities such as archery, quizzes and action challenges, and informal conversations helped colleagues get to know one another beyond their research roles. Feedback highlighted both discovering research outside one’s own field and making personal connections as strengths of the retreat.



The Domino Challenge



Taking aim together



At the archery targets

YOUR FEEDBACK: SHAPING HEIBRiDS TOGETHER

Thank you to everyone who shared feedback after the retreat! **More opportunities to meet beyond seminars** were one of the most frequent suggestion from the doctoral researchers.

Other suggestions included **bringing back invited speakers alongside PhD seminars** and introducing **short, six-monthly check-ins with programme leadership**. These 15–20-minute exchanges would offer space to discuss how things are going and make the board more familiar and approachable.

Your ideas provide valuable input for the further development of HEIBRiDS and a more connected, supportive research community.

RESEARCHER NEWS

Sharing research, building collaborations and making space to write.

Publications

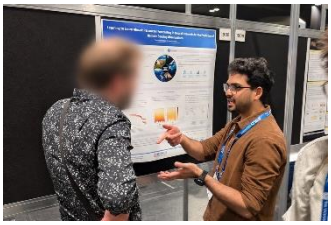
Congratulations to **Daniel León-Periñán (MDC)** on his **first-author publication in Nature** published in August introducing **Malva**, a platform for searching RNA sequences across millions of cells in seconds. Daniel is also part of **Malva's founding team**, taking this research towards biotechnology and drug-discovery applications with support from the **BIH Digital Health Accelerator**.

Read the Nature paper Meet Malva at MDC

Ocean Sciences Meeting, Glasgow

SARAN RAJENDRAN (GFZ) | February

Saran Rajendran contributed to the Ocean Sciences Meeting in Glasgow as co-convener and co-chair of an oral session. He also presented his poster and discussed his work with fellow scientists, taking an active role in both the scientific programme and the conversations around it.



Grand Challenges Conference, Berlin

ZIXIN HU & ANNA BUCH (GFZ) | March/April

Zixin Hu and **Anna Buch** shared their research at the first Grand Challenges Conference in Berlin, organised by the Berlin University Alliance and at EGU26. Zixin presented her work using large language models to analyse national flood adaptation plans; Anna's poster explored a European database of climate-related impacts on critical infrastructure.



Conference impressions Anna at EGU26

Research collaboration in Newcastle

HENDRIK JUNKAWITSCH (HZB) | May/June

Hendrik Junkawitsch (HZB) travelled to Newcastle in May/June for a collaborative research stay, extending his scientific exchange beyond the HEIBRiDS network.

H.E.S.S. night shifts in Namibia

YIFAN TIAN (DESY) | July

Yifan Tian (DESY) began H.E.S.S. night shifts in Namibia in July, combining his doctoral research with on-site experience at the observatory.

Field notes: Carl Stadie (AWI) in Alaska



Carl Stadie (AWI) joined the Perma-X Ground Alaska 2026 expedition in July. Near Unalakleet, the team combined drone surveys with ground measurements of driftwood deposits.

Photograph: Perma-X Ground Alaska 2026, Week 1 report, pp. 3-6.

Making space to write: HIDA Research Writing Lab

Ekin Celikkan (GFZ), Zixin Hu (GFZ), Anna Buch (GFZ, associate) and GueHo Jang (MDC, associate) took part in the HIDA Research Writing Lab 2026 in July. The five-day retreat combined protected writing time, workshops, individual coaching and peer exchange, giving doctoral researchers space to work on their dissertations, and papers.

Writing Lab recap | July

FURTHER DEVELOPMENT

COMET: Careers, **O**rientation, **M**entoring & **E**merging **T**alent within HEIBRiDS

HEIBRiDS has developed COMET to strengthen career transitions, industry engagement and visibility across our network**. The proposed measures have been recommended for funding**; the formal funding agreement is still pending. More details will be shared soon.

MEASURES RECOMMENDED FOR FUNDING | FORMAL AGREEMENT PENDING

Transition funding

Application-based support for doctoral researchers after thesis submission: career development, sector placements of up to three months, conferences and external training.

Industry mentoring

Six to nine months of one-to-one mentoring with a consultancy specialising in cross-company mentoring.

Transfer & communication

Support for the HEIBRiDS website and LinkedIn, recruitment campaigns, research communication, including student-assistant support.

Strategic collaborations

Faculty visits, software and international collaborations through workshops, training and summer schools, including with partners in developing countries.

What happens next? Calls will open once implementation is authorised; eligibility, the short proposal process, selection criteria and deadlines will be shared separately. All funded activities must be completed by 31 December 2027.

PROGRAMME OUTLOOK

Looking ahead, reconnecting through our PhD seminars and relaunching the Lecture Series

PhD seminar programme

The Winter semester starts on 28 October 2026.

DATE	DOCTORAL RESEARCHER
Wed, 28 Oct 2026	Karen Schmieder (MDC)
Tue, 17 Nov 2026	Zixin Hu (GFZ)
Wed, 25 Nov 2026	Lauren Gerber (MDC)
Wed, 9 Dec 2026	Sina Glöckner (MDC, associate)
Wed, 6 Jan 2027	Fabian Krüger (MDC, associate)
Wed, 20 Jan 2027	Ilias Koulalis (MDC, associate)
Wed, 10 Feb 2027	Emma Vinson (AWI)
Wed, 17 Feb 2027	Mina Kaufhold (MDC, associate)
Wed, 3 Mar 2027	Anna Buch (GFZ)

Lecture Series

We are relaunching our Lecture Series with our first invited speaker, Prof. Dr. Felix Bießmann, whose talk is scheduled **for October 28 at 16:00 at MDC-BIMSB**; invitation to the talk will be sent out shortly.

HEIBRiDS beyond 2027

HIDA transition: continuity

In mid-September, we learned that HIDA's current structure and central coordinating role are due to end after 2027. This does not mean that HEIBRiDS is ending: the HIDS Schools' core financing is secured independently of HIDA's project budget. New arrangements will be needed for cross-school coordination and shared formats such as the "PhD Journey."

Preparing for evaluation

Evaluation of the HIDS School system is currently expected in **autumn 2027**, with supporting documentation to be ready by mid-2027. Preparation will cover training, governance, recruitment, funding, supervision, interdisciplinarity and partner collaboration.