



Dear MMM members,

We hope the winter term started well for all of you – we are glad that the students are back on campus, everyone! Here is another update on recent developments within and around MMM.

With kind regards,

Hanna Voudouri & Dennis Küster (MMM Office)

Latest MMM Science-News from our AGs

Minds, Media, Machines and the Center for Cognitive Sciences took part in the first **MindDay** event which was hosted at the Überseemuseum Bremen and organized by Olivia Masseck, Udo Ernst, and Tanja Schultz. In addition to a stimulating talk series ([link](#)), the MindDay involved several interactive hands-on stations for interested citizens, including contributions by the MMM-AGs of Frank Kirchner, Tanja Schultz, Michael Beetz, Olivia Masseck, Udo Ernst, and Rainer Malaka. We are looking forward to a potential sequel to this initiative!

For those of you who enjoy reading about how digital technologies impact all aspects of our lives: Andreas Hepp recently published his recommendable **book**: "[Auf dem Weg zur digitalen Gesellschaft. Über die tiefgreifende Mediatisierung der sozialen Welt](#)" – congratulations!

More great news from Rolf Drechsler's DFKI Cyber-Physical Systems research department: together with Dr. Mehran Goli he won the **Best Paper Award** of the „Forum on Specification & Design Languages“ 2021 for their publication „VIP-VP: Early Validation of SoCs Information Flow Policies using SystemC-based Virtual Prototypes“.

Groundbreaking research also comes from Tanja Schultz' group: CSL together with the Department of Neurosurgery at Maastricht University in the Netherlands, and the ASPEN Lab at Virginia Commonwealth University (USA) has succeeded to generate audible speech in real-time from imagined or whispered speech based on neural activity recordings – a crucial progress towards a speech neuroprosthesis, published in [Nature Communications Biology](#).

Andreas Breiter joined Jan-Martin Wiarda's podcast "Wiarda wundert sich" and spoke with him about learning management systems and digital infrastructure in German schools, and about current political decisions in Germany that have been made in the US already two decades ago: "[Der Digitalpakt der Amerikaner war vor 20 Jahren](#)".

MMM Funding Opportunities

The present call for MMM PI-Seed-Grant proposals is now closed - we are looking forward to offering this high-profile line of seed grant opportunities again next year! It is our pleasure to announce the start of a new round of calls for proposals for **MMM PostDoc-Seed-Grants**! It is designed to aid our PostDocs in sharpening and developing their research profile and/or becoming visible as an expert in an MMM-related research topic.

There are two types of applications for this call: We aim to encourage collaborations among PostDocs from at least two MMM-AGs. However, we also recognize the potential of smaller individual projects that might lead to an interesting output based on the new ideas of a single MMM PostDoc. Therefore, this new funding line can now also be used to apply for a broad range of measures to support PostDocs in conducting excellent individual research in MMM. However, applications for individual financial support should also outline the relevance of their work with respect to our aim of establishing new collaborations.

Funding via MMM PostDoc-Seed-Grants is available up to the following amounts, depending on proposals targeting individual or team efforts:

- For individual PostDoc-Seed-Grants: up to **3500 EUR**

- For collaborative proposals by PostDocs from at least two MMM-AGs: up to **5000 EUR** per AG per grant (e.g., 10000 EUR for two PostDocs from two different AGs)

Q&A session: Dennis Küster (MMM Science Manager) is offering a Q&A session on our MMM PostDoc-Seed-Grants. This session is scheduled to take place this Wednesday, **November 3rd, 15:00** via Zoom ([Meeting-Link](#)). Please feel free to drop by, or contact us in case you have questions but cannot make it at this time. The deadline for this call of proposals round is November 15th. For details, please refer to the proposal-template ([link](#)).

New 3rd-Party Funded Projects

In this new newsletter category, we will briefly report about new research projects of MMM-members that may be of interest to our community. Please do not hesitate to contact us at any time if you would like your own new project(s) listed here, or on our website!

HateSpeech: “From automatic classification to understanding emotional dynamics” (DFG-NCN; Beethoven CLASSIC 4; starting in Feb. 2022). Tanja Schultz and Dr. Aleksandra Świdorska (University of Warsaw) have been afforded funding for this new Polish-German interdisciplinary research project to help better understand the underlying properties of hate speech and its impact on listeners.

External Funding Opportunities (selected calls)

The DFG has opened the call for the [Communicator Award 2022](#) (deadline January 07, 2022) and explicitly encourages applications by teams who significantly contribute to making their research accessible to a wider public and engage in a dialogue between the research community and the public.

The New EU **Horizon Europe** Program features many current and forthcoming calls for Research and Innovation Actions (RIAs) involving some highly MMM-relevant challenges of Cluster 4: “Digital, Industry and Space”. An overview can be found via the “Funding and Tenders” portal ([link](#)). A few interesting forthcoming examples include the following:

- [Cognitive Cloud: AI-enabled computing continuum from Cloud to Edge](#) (RIA; deadline April 05, 2022): A new AI-enabled Cloud-edge framework (Cognitive Cloud) that will automatically adapt to the growing complexity and data deluge by integrating seamlessly and securely diverse computing and data environments, spanning from core cloud to edge.
- [AI for human empowerment](#) (AI, Data and Robotics Partnership) (RIA; deadline April 05, 2022): Build the next level of **perception, visualization, interaction and collaboration** between humans and AI systems working together as partners to achieve common goals, sharing mutual understanding and learning of each other’s abilities and respective roles.
- [eXtended Reality Technologies](#) (RIA; deadline April 05, 2022): The emergence of smart cities and factories, autonomous vehicles and homes, intelligent appliances in conjunction with Virtual and Augmented Reality applications are opening new ways to live, work, care, learn, play and socialize.
- [Artificial intelligence, big data and democracy](#) (RIA; deadline April 20, 2022): Big data and AI are shaping our societies at an unprecedented rate. [...] Proposals should analyse challenges and opportunities for society brought about by AI and big data.

Early Career Researchers

For postdocs and PhD students who are pursuing an academic career, BYRD’s workshop on [Training for Professorial Appointment Procedures](#) and the [Postdoc Forum online](#) about the Postdoc Program of the [Hanse-Wissenschaftskolleg](#) (Institute for Advanced Study) Delmenhorst will be of interest. Joining HWK as Associate Junior Fellow can make significant contributions to a postdoc’s visibility and scientific network. Both events will be held in November.

Last but not least, we warmly congratulate **Dr. Muhammad Hassan** who successfully defended his thesis on “*Enhanced Modern Virtual Prototype based Verification Flow for Heterogeneous Systems*” in Rolf Drechsler’s AGRA group as well as **Dr. Miguel Angrick** who successfully defended his thesis on “*Speech synthesis from invasive brain signals: From offline analysis to closed-loop speech decoding*” at the Cognitive Systems Lab of Tanja Schultz – all the best for your future!

Science Policy

The [Federal government](#) and several states' governments (including Bremen) will support the DFKI with an additional 22 Mio. € per year to strengthen the implementation of the German AI strategy.

The DFG has published its [Förderatlas 2021](#) – an extensive report on funding in German universities (from 2017 to 2019). The University of Bremen has acquired one of the highest proportions of DFG funding (ca. 50%) relative to other funding sources (BMBF, EU etc.), summing up to approximately 150 Mio. Euros of DFG funding. Among the universities with the highest numbers of approved DFG grants, the University of Bremen is ranked eleventh for the Natural Sciences, thirteenth for Engineering, and twenty-first in total across all disciplines.

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