

Press Information

JUPITER selects first AI projects – Bonn research team led by Prof. Dr. Jürgen Gall among the winners

Only ten teams nationwide will receive exclusive access to the European exascale supercomputer. With the HoMe project, AI research in Bonn is sending a strong signal in the fields of vision, robotics, and generative AI.

Bonn, November 21, 2025. The European exascale supercomputer JUPITER at Forschungszentrum Jülich is one of the most powerful systems in the world. In the nationwide Gauss AI Compute Competition, the first ten projects have now been selected to receive exclusive access to JUPITER – including the working group led by Prof. Dr. Jürgen Gall, Principal Investigator at the Lamarr Institute for Machine Learning and Artificial Intelligence and Professor of Computer Science at the University of Bonn. This success strengthens the role of AI research in NRW and underscores the Lamarr Institute's profile in vision, robotics, and generative models.

In the HoMe project – short for the combination of Human Motion and Me, i.e., one's own perspective – the Bonn-based Computer Vision Group is developing a generative AI model that creates realistic videos from a first-person perspective, controlled by a person's three-dimensional body pose. "JUPITER provides us with an infrastructure that takes our research to a whole new level. It enables us to develop models that depict the interplay of perception, movement, and interaction in a much more realistic way, thus providing new impetus for vision and robotics systems," says Prof. Gall. Controllable video generation opens up applications in AR/VR, teleoperation, computer game development, and robotics. Around 15 million GPU hours are available for training on JUPITER, whose more than 70 exaflops per second – that's 70 trillion (10 to the power of 18) floating point operations per second – for AI workloads are intended to enable fundamental advances in the development of generative models and strengthen Europe's digital sovereignty.



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Lamarr Institute for Machine Learning and Artificial Intelligence

The Lamarr Institute is shaping a new generation of Artificial Intelligence (AI) that is high performing, sustainable, trustworthy and secure to contribute to solving fundamental challenges in business and society. As one of Germany's major AI competence centers, the Lamarr Institute stands for value-based, internationally competitive and application-oriented excellent research and is engaged in science, education and technology transfer on a regional, national as well as international level.

The research institute is constituted by the TU Dortmund University, the Rheinische Friedrich-Wilhelms-Universität Bonn and the Fraunhofer Institutes for Intelligent Analysis and Information Systems IAIS in Sankt Augustin and for Material Flow and Logistics IML in Dortmund. As outlined in the federal government's AI strategy, the Lamarr Institute receives permanent funding from the German Federal Ministry of Research, Technology and Space (BMFTR) and the state of North Rhine-Westphalia.