

Pressemitteilung**Technische Universität Darmstadt****Bettina Bastian**

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Informationstechnik, Psychologie
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DARMSTADT**Between perception and action: TU Darmstadt contributes cognitive expertise to the international SCENE programme**

Participation in the newly founded Simons Collaboration on Ecological Neuroscience (SCENE) marks an important success for cognitive science at TU Darmstadt. Over the next ten years, the internationally networked SCENE research programme will promote interdisciplinary projects investigating the connection between perception and action – a core topic of the Centre for Cognitive Science at TU Darmstadt and the research cluster The Adaptive Mind (TAM), with which TU Darmstadt is currently competing in the Excellence Strategy of the federal and state governments.

With Professor Constantin A. Rothkopf, TU Darmstadt is not only the only German institution in the international consortium. Rothkopf, scientific director of the Centre for Cognitive Science and spokesperson for the TAM cluster, will head the 'Human Team' within SCENE. In this role, he will contribute his extensive expertise in computer-based cognitive modelling, machine learning and neuroscience.

SCENE is funded by the Simons Foundation with more than eight million US dollars annually. Founded in 1994 and based in the USA, the foundation is dedicated to advancing research in mathematics and basic sciences. It supports various scientific projects, including the Simons Collaboration Projects.

SCENE focuses on affordances – opportunities for action in the environment that the brain continuously processes and evaluates. The central research question is: How does the brain encode this sensorimotor information, and how does it shape human cognitive representations? Answers to these questions promise new insights into the fundamental principles of human perception and decision-making.

The project was selected in a multi-stage process: after two further rounds of evaluation, SCENE was the only project to receive funding from an initial 245 project proposals submitted. A total of 20 principal investigators from the USA, Europe and Israel are participating, with Rothkopf as the only representative from a German university. The official project will start on 1 July 2025.

SCENE complements the profile of TU Darmstadt as one of the leading locations for research at the interface of artificial intelligence and cognitive science. The Centre for Cognitive Science at TU Darmstadt pursues an integrative approach that systematically links AI, psychology, neuroscience and movement science. The goal is a deeper, computational understanding of human cognition and its application in explainable AI.

The TAM research cluster, in which TU Darmstadt is involved and which is currently competing for the title of Cluster of Excellence in the Excellence Strategy of the federal and state governments, will also benefit from the impetus provided by the new programme. TAM investigates human behaviour under changing conditions and develops new approaches for modelling adaptive and learning systems. The personnel interface between TAM and SCENE – Constantin A.

Rothkopf – underscores the strategic connection between the two initiatives.

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URL zur Pressemitteilung: <https://www.simonsfoundation.org/2025/04/24/simons-foundation-launches-collaboration-on-ecological-neuroscience/?swcfpc=1>

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