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#### LATEST UPDATES



## Al sheds new light on exoplanets

Researchers from LMU, the Cluster of Excellence ORIGINS, the Max Planck Institute for Extraterrestrial Physics (MPE), and the ORIGINS Data Science Lab (ODSL) have achieved an important breakthrough in the analysis of exoplanet atmospheres. They have developed neural networks to model the atmospheres of exoplanets more accurately. Their method significantly improves the analysis of exoplanetary atmospheres, offering more detailed insights composition, into temperature, and cloud cover. This breakthrough could lead to further advances in astrophysics and Al-based research.

Read the full article here



# New Al initiative GAIn makes artificial intelligence energy efficient

The GAIn Project (Next Generation AI Computing), a collaboration between the Free States of Bavaria and Saxony, focuses on developing energy-efficient Al technologies. The research team, which is headed by Prof. Dr. Gitta Kutyniok (Ludwig-Maximilians-Universität München), consists of Prof. Dr. Holger Boche (Technische Universität München), as well as Prof. Dr. Stefanie Speidel and Prof. Dr. Frank Fitzek (both Technische Universität Dresden), with baiosphere, the Digital Agency Saxony, and several companies or start-ups as network partners. Backed by a €6 million investment from both Ministries of Science, the initiative aims to create innovative AI hardware and software solutions to reduce energy consumption while addressing predictability, reliability, and legal compliance challenges.

Read the full article here



#### Dig Deep Podcast

Prof. Dr. Frauke Kreuter and Dr. Christof Horn host the MCML featured German podcast #digdeep, which tackles the disruptive effects of digitalization on society, science, and the economy. Among current episodes topics such as robotaxis and fair educational opportunities through digital solutions can be found. The podcast views digitalization as a force that is reshaping the world and offering new and fairer opportunities despite its disruptive nature.

Listen to the latest episode here

**UPCOMING EVENTS** 



#### Munich



#### Women in Data Science Conference

The Women in Data Science (WiDS) Conference set for October 10, 2024 has some inspiring speakers on the agenda. WiDS Munich is independently organized by LMU, TUM, MDSI, BERD@NFDI, the TUM Think Tank, and Sixt SE, as part of the mission to increase the participation of women in data science and to showcase the exceptional work of outstanding women in the field. Prof. Dr. Frauke Kreuter, Dr. Anna-Carolina Haensch, Leah von der Heyde, Helena Dzakula, and Dr. Wiebke Weber from LMU are part of the WiDS team in 2024. The event is open to all genders.

Read more here

### Introduction to the new Al Minor

In the scope of the upcoming orientation phase, the Chair of Artificial Intelligence and Machine Learning, headed by Prof. Dr. Eyke Hüllermeier, will introduce the new Al minor **October 11, 2024.** The event takes place in Theresienstraße 39, room B 047 from 12:00 pm to 14:00 pm and aims to provide detailed information about the new Al minor program to interested students.

Read more here



## Exploring life with artifical intelligence

For decades, bioinformatics has been working on gaining new knowledge from the large databases of biology and medicine. In recent years, machine learning, often referred to as artificial intelligence, has enabled breakthroughs in bioinformatics that were previously almost unimaginable. In his lecture scheduled for October 15, 2024, 19:00 pm, Prof. Dr. Borgwardt will Karsten detail milestones and show what goals machine learning currently pursuing bioinformatics. The lecture will take place in the main lecture hall at Max-Planck-Institute in Planegg-Martinsried or online.

Read more here



## Human-computer interaction in transition

Prof. Dr. Albrecht Schmidt will give a lecture on the topic "Journey Through the World of Technology" on **October 16, 2024** within the framework of the teaching programs of the Center for Senior Studies. The event is part of the lecture cycle Spektrum der Wissenschaften.

Read more here



#### Partiality, Relationships, and Al

The Chair of Ethics of Artificial Intelligence, lead by Prof. Dr. Sven Nyholm, cordially invites you to the workshop that takes place October 24 & 25, 2024, at room M210/ZEPP at Geschwister-Scholl-Platz 1. This workshop explores the of implications increasing human interactions with Al systems, which are replacing traditional human relationships. It raises questions about whether Al can replicate the intimacy, trust, and emotional connections of human relationships and examines the moral obligations we might have toward AI in these roles.

Read more here



## The Mathematical Universe behind Deep Neural Networks

Prof. Dr. Helmut Bölcskei from ETH Zurich will talk about the theoretical foundations behind the practical successes of deep neural networks on **November 25**, **2024**, at 17:00 pm. This Munich Al lecture will provide a deep dive into the mathematical principles that underpin these technologies, covering topics such as functional analysis, approximation theory, dynamical systems, and more.

Read more here

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