AI in Ophthalmology

1st INTERNATIONAL GLAUCOMA SYMPOSIUM

Artificial Intelligence Assisted Glaucoma Diagnosis & Management

February 1, 2025
Mainz | Germany
9 am – 4 pm

Heidelberg Engineering Academy
in cooperation with:

JG|U   UNIVERSITÄTS**medizin.**
MAINZ

1st International Glaucoma Symposium

With advances in powerful image processing and machine learning techniques, computer-aided diagnosis has become increasingly widespread across all medical fields, including ophthalmology.

Glaucoma, a group of potentially blinding eye diseases, is characterized by optic disc changes, irreversible visual field defects, and often elevated intraocular pressure. Early and accurate diagnosis of glaucoma is crucial to prevent loss of visual function. However, the limitations of conventional diagnostic methods present opportunities for more advanced techniques using artificial intelligence (AI). These methods enable reliable and standardized large-scale screening of various imaging modalities, supporting clinicians in disease detection.

When combined with optical coherence tomography imaging, AI can create algorithms that model complex data for the effective detection and diagnosis of glaucoma.

We are very proud to present national and international experts in the field of artificial intelligence during this 1st Heidelberg Engineering Glaucoma Symposium (IGS) hosted at the Department of Ophthalmology of the Mainz University Medical Center. This meeting is intended to inspire other AI meetings in the field of ophthalmology.

We look forward to seeing you in Mainz!

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Prof. Norbert Pfeiffer, MD
Head of Department of Ophthalmology
University Medical Center Mainz

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Prof. Esther Hoffmann, MD
Executive Consultant Ophthalmologist,
Head of German Childhood Glaucoma Center
University Medical Center Mainz

Topics

Introduction to **Artificial Intelligence**

AI Opportunities and **Challenges** in Ophthalmology

Glaucoma and AI: The World of Tomorrow

AI for Glaucoma: State of the Art

Which Glaucoma Imaging Modalities Suit AI

Which AI Model for Glaucoma and **Why?**

AI-Assisted Clinical Workflow in Glaucoma

Deep Learning Predicting:
- Glaucoma Patients Vision
- Fast Glaucoma Progressors

Speakers

Ahmed, Sheraz | Kaiserslautern, Germany
Bozek, Katarzyna | Cologne, Germany
Mardin, Christian | Erlangen, Germany
Medeiros, Felipe | Miami, USA
Pazos, Marta | Barcelona, Spain

Pinto, Luis Abegao | Lisboa, Portugal
Schmetterer, Leopold | Vienna, Austria
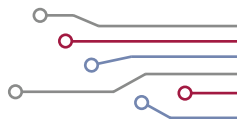**Schottenhamml, Julia** | Erlangen, Germany
Stalmans, Ingeborg | Leuven, Belgium
Xu, Benjamin | Los Angeles, USA

REGISTER NOW!

Meeting Venue:

Department of Ophthalmology
Mainz University Medical Center
Auditorium, Building 102
Langenbeckstrasse 1
55131 Mainz | Germany

Registration fee:

69,00 EUR incl. meals and VAT
Save your seat and register latest by Jan. 15, 2025!

Travel Information:

Parking: Car parks **Am Augustusplatz** or **Unimedizin** (10 EUR/day)

By Plane: From Frankfurt Airport (FRA): 30-45 min. ride by taxi.

By Bus: From Mainz train station (Hauptbahnhof) busses 62, 67, 69, 76, 92, 652 and 660 take you to station **Universitätsmedizin** with a short walking distance to building 102 on the campus.

By Tram: From Mainz train station (Hauptbahnhof) trams 50, 52 and 53 take you to station **Am Gautor** with 10 min. walking distance to building 102 on the campus.
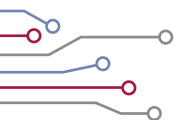
For more information and scientific program visit our website:

www.he-academy.com

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