

This special session aims to explore cutting-edge mathematical and computational approaches for understanding brain tumor dynamics, optimizing treatment strategies, and advancing personalized medicine. By integrating multiscale modeling, data-driven methods, and high-performance simulations, the session will bridge gaps between theoretical mathematics, clinical oncology, and computational neuroscience. Researchers are invited to share innovations in model development, validation, and translational applications.

Special Session 2 Advanced Mathematical Modeling and Simulation in Brain Tumor Research

Related Topics (Topics of interest for submission include, but are not limited to)

1. Multiscale Tumor Modeling

- From molecular pathways to macroscopic tumor growth dynamics.

2. Therapy Optimization

- Mathematical frameworks for radiotherapy, chemotherapy, and immunotherapy.

3. Machine Learning & Data Integration

- Predictive modeling using clinical/imaging data (e.g., MRI, radiomics).

4. Biomechanics & Microenvironment

- Modeling hypoxia, angiogenesis, and cell-matrix interactions.

5. Personalized Medicine

- Patient-specific model calibration and treatment planning.

6. Computational Challenges

- Scalable algorithms and HPC for large-scale simulations.

Important Dates

Submission Deadline:	May. 20, 2025
Notification of Acceptance:	Jun. 10, 2025
Registration Deadline:	Jun. 30, 2025
Conference Dates:	Sept. 24-25, 2025
Social Program:	Sept. 26, 2025

Paper Publication

All accepted papers will be published in the International Conference Proceedings, submitted to be indexed by **Ei Compindex** and **Scopus**.

Submission Methods and Listener Registration

Electronic Submission System:

<http://confsys.iconf.org/submission/amms2025>

Conference Email Box:

amms@cbees.net

Listener Registration:

<http://confsys.iconf.org/register/amms2025>

Contact Us

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Chair



Prof. Dr. Ersin Ozugurlu
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Committee Member



Prof. Dr. Samet Yucel Kadioglu
Istanbul Technical University, Turkey
Dean of Faculty of Arts & Sciences, Dept. Of Mathematics

Keynote Speakers



Prof. Benedict Leimkuhler
University of Edinburgh, UK



Prof. Gyu Myoung Lee
Liverpool John Moores University (LJMU), UK

Invited Speakers



Dr. Gökhan Yıldırım
Bilkent University, Turkey



Dr Chris G. Antonopoulos
University of Essex, UK



Assist. Prof. Paola Lecca
Free University of Bozen-Bolzano, Italy



Assoc. Prof. Ahmad Lutfi Amri Ramli
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