

CNB-MAC 2023

September 3, 2023
Houston, Texas

8th International Workshop on Computational Network Biology: Modeling, Analysis, & Control

The **Eighth International Workshop on Computational Network Biology: Modeling, Analysis, and Control (CNB-MAC 2023)** will be held in **Houston, TX, on September 3**. The workshop will be organized in conjunction with the 14th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB 2023), the flagship conference of the ACM SIGBio. The workshop aims to provide an international scientific forum for presenting recent advances in computational network biology that involve modeling, analysis, and control of biological systems and system-oriented analysis of large-scale OMICS data.

CNB-MAC 2023 solicits **original research papers** that report new research findings that have not been published elsewhere, **highlight abstracts** that present advances in the field that have been reported in recent journal publications, and **poster abstracts** for rapid dissemination of the latest research results in computational network biology. The main emphasis of the workshop will be on rigorous mathematical and/or computational approaches for studying biological networks, systems, and pathways and the analysis of large-scale OMICS data from a systems perspective. **New this year**, CNB-MAC 2023 will offer a panel on the **Role of emerging AI/ML in computational network biology** as well as a structured events to foster networking and collaboration (including a mentoring session).

Topics of interest include (but are not limited to):

- Biological network inference
- Modeling and simulation of biological networks
- Multi-scale modeling using networks
- Network-based integration and analysis of OMICS data
- Network-based modeling of microbiome data and interactions
- Network dynamics and network control
- Detection, modeling, and analysis of regulatory modules in biological networks
- Pathways and networks in complex diseases
- Integration of domain knowledge in biological system and data analysis
- Interpretation of network-based predictions in systems biology
- Epidemiology and exposure networks
- Networks to model molecular structure and function
- Deep learning algorithms using biological network topology
- Networks in precision medicine (e.g., drug response and drug target prediction)

All paper, highlight, and abstract submissions should be made through the EasyChair online submission system: <https://easychair.org/conferences/?conf=cnbmac2023>

Partner journal: As in previous years, full-length original research papers accepted for presentation at CNB-MAC 2023 will be published in a special issue of CNB-MAC 2023 partner journal. This year, we are partnering with BioMed Central publisher (*BMC*).

Important dates:

- Full paper submission deadline: July 17, 2023
- Highlight abstract submission deadline: July 31, 2023
- Poster abstract submission deadline: July 31, 2023

Papers will be notified by August 4, 2023. Abstracts will be notified by August 7, 2023

<https://cnbmac.org/>