callforpaper.org

Italy September 2-4, 2026

Submission Deadline: 3rd May, 2026

CONFERENCE WEBSITE: https://cibb2026.teralab.ai/tracks/special-ai-and-computational-methods-for-medical-informatics/

About the Conference

AI and Computational Methods for Medical Informatics

This special session focuses on artificial intelligence and computational methodologies for medical informatics, with a particular emphasis on epidemiological modeling, clinical data intelligence, and predictive analytics in biomedicine. The session uses data-driven approaches that integrate machine learning, data mining, and statistical modeling to extract clinically and biologically meaningful information from heterogeneous biomedical data. The scope includes advanced techniques for biomedical and clinical data mining, spatio-temporal analysis of health data, predictive modeling for disease progression and treatment response, and artificial intelligence-based tools to support clinical decision-making. Contributions addressing computational epidemiology, digital diagnostics, and real-world clinical data analysis are

Important Dates

MAY 03 — PAPER SUBMISSION: 3rd May, 2026 Closed

JUN 15 — NOTIFICATION: 15th June, 2026

JUL 07 — FINAL VERSION DUE: 7th July, 2026

SEP 02 — CONFERENCE DATE: September 2-4, 2026

particularly encouraged. The session also welcomes research on natural language processing for biomedical texts, multimodal integration of clinical, molecular, and population-level data, and interpretable AI models to improve trust and adoption in the medical field. Within the framework of medical informatics, the session specifically addresses computational methods for genomic and evolutionary data analysis applied to infectious disease surveillance, host-pathogen interaction modeling, and real-time monitoring of pathogen genomic variability.

These approaches are integrated into clinical decision support systems, digital epidemiology platforms, and public health intelligence infrastructures, enabling the translation of genomic and phylogenetic data into actionable information for clinicians and public health officials.

The One Health paradigm is addressed through information systems that integrate human, animal, and environmental health data for early warning and response to epidemics. Particular attention is given to the explainability, robustness, and validation of AI models in healthcare, as well as scalable algorithms and infrastructures for large-scale biomedical and genomic data analysis. The session aims to address applications ranging from infectious diseases to public health surveillance, precision medicine, and translational biomedical research.

The expected impact is the promotion of interdisciplinary research linking informatics,

genetics, medicine, and public health, fostering the development of reliable, interpretable, and clinically usable AI solutions for modern medical informatics and genome-based surveillance systems.

Topics of interest include, but are not limited to:

* Biomedical and Clinical Data Mining
* Computational and Predictive Models in Epidemiology
* Spatiotemporal Analysis of Health and Population Data
* AI for Clinical Decision Support
* Predictive Modeling for Disease Progression and Treatment Response
* Digital Diagnostics and Real-World Clinical Data Analysis
* Biomedical Text Mining and NLP for Health Applications
* Multimodal Integration of Clinical, Molecular, and Epidemiological Data
* Explainable and Interpretable AI in Medical Informatics
* Scalable Algorithms and Data Infrastructures for Healthcare
* Public Health Informatics and Surveillance Systems
* Computational Genomics and Evolutionary Analysis for Medical Informatics
* Phylodynamic Modeling for Infectious Disease Surveillance
* AI-assisted Genomic Surveillance in Clinical and Public Health Settings
* Host–Pathogen Interaction Informatics
* Integration of Genomic Variability Data into

Clinical Decision Support
* One Health Informatics: Human, Animal, and Environmental Data Integration for Epidemic Intelligence

Key Dates
Short paper deadline: May 3rd, 2026
Acceptance notification: June 15th, 2026
Camera-ready: July 7th, 2026
Conference: September 2-4, 2026, Rome

How to Submit
Format: 4-6 pages, Submissions template available here
System: EasyChair
At least one author must register

Publication
Oral presentation at CIBB 2026
Extended version Springer LNBI proceedings or journal special issues

TOPICS OF INTEREST 4 topics

Research papers are invited in, but not limited to, the following areas:

- explainable ai
- data mining
- predictive analytics
- clinical decision support

Venue Information

Rome, Italy

Special conference rates often available near the venue.