

Call for Papers

Graph Models for Learning and Recognition (GMLR) Track

The 39th ACM Symposium on Applied Computing (SAC 2024)

April 8-12, 2024, Avila, Spain

SAC 2024

https://phuselab.di.unimi.it/GMLR2024

Track Chairs

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Important Dates

October 13, 2023
Submission of regular papers
November 17, 2023
Notification of acceptance / rejection
December 15, 2023
Camera-ready copies of accepted papers
April 8-12, 2024:
SAC Conference

Motivations and topics

The *ACM Symposium on Applied Computing* (SAC 2024) has been a primary gathering forum for applied computer scientists, computer engineers, software engineers, and application developers from around the world. SAC 2024 is sponsored by the *ACM Special Interest Group on Applied Computing* (SIGAPP), and will be held in Avila, Spain. The technical track on Graph Models for Learning and Recognition (GMLR) is the third edition and is organized within SAC 2024.

Graphs have gained a lot of attention in the pattern recognition community thanks to their ability to encode both topological and semantic information. Despite their invaluable descriptive power, their arbitrarily complex structured nature poses serious challenges when they are involved in learning systems. Some (but not all) of challenging concerns are: a non-unique representation of data, heterogeneous attributes (symbolic, numeric, etc.), and so on.

In recent years, due to their widespread applications, graph-based learning algorithms have gained much research interest. Encouraged by the success of CNNs, a wide variety of methods have redefined the notion of convolution and related operations on graphs. These new approaches have in general enabled effective training and achieved in many cases better performances than competitors, though at the detriment of computational costs.

Typical examples of applications dealing with graph-based representation are: scene graph generation, point clouds classification, and action recognition in computer vision; text classification, inter-relations of documents or words to infer document labels in natural language processing; forecasting traffic speed, volume or the density of roads in traffic networks, whereas in chemistry researchers apply graph-based algorithms to study the graph structure of molecules/compounds.

This track intends to focus on all aspects of graph-based representations and models for learning and recognition tasks. GMLR spans, but is not limited to, the following topics:

- Graph Neural Networks: theory and applications
- Deep learning on graphs
- Graph or knowledge representation learning
- Graphs in pattern recognition
- Graph databases and linked data in AI
- Benchmarks for GNN
- Dynamic, spatial and temporal graphs
- Graph methods in computer vision
- Human behavior and scene understanding
- Social networks analysis
- Data fusion methods in GNN
- Efficient and parallel computation for graph learning algorithms
- Reasoning over knowledge-graphs
- Interactivity, explainability and trust in graph-based learning
- Probabilistic graphical models
- Biomedical data analytics on graphs

Submission Guidelines

Authors are invited to submit original and unpublished papers of research and applications for this track. The author(s) name(s) and address(es) must not appear in the body of the paper, and self-reference should be in the third person. This is to facilitate **double-blind review**. Please, visit the website for more information about submission.

Journal Special Issue

The track committee is working to organize a journal Special Issue, to which the authors of selected top papers of this track will be invited for an extended version.

SAC No-Show Policy

Paper registration is required, allowing the inclusion of the paper/poster in the conference proceedings. An author or a proxy attending SAC MUST present the paper. This is a requirement for the paper/poster to be included in the ACM digital library. No-show of registered papers and posters will result in excluding them from the ACM digital library.