

Call for Papers

Graph Models for Learning and Recognition (GMLR) Track

The 37th ACM Symposium on Applied Computing (SAC 2022)

April 25-29, 2022, Brno, Czech Republic

SAC 2022

http://phuselab.di.unimi.it/GMLR2022

Track Chairs

Donatello Conte (University of Tours)
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Important Dates

Submission of regular papers
October 15, 2021
Notification of acceptance/rejection
December 10, 2021
Camera-ready copies of accepted papers
December 21, 2021
SAC Conference
April 25 - 29, 2022

Motivations and topics

The *ACM Symposium on Applied Computing* (SAC 2022) has been a primary gathering forum for applied computer scientists, computer engineers, software engineers, and application developers from around the world. SAC 2022 is sponsored by the *ACM Special Interest Group on Applied Computing* (SIGAPP), and will be held in Brno, Czech Republic. The technical track on Graph Models for Learning and Recognition (GMLR) is the first edition and is organized within SAC 2022.

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 for 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 representational 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

Authors of selected top papers of this track will be asked to publish an extended version in a Special Issue of a Journal (the journal will be announced soon).

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

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.