

ACDL Satellite Workshop on Graph Neural Networks

Siena, the 15-20 July 2019

Most recent advances in machine learning rely on the remarkable benefit deriving from the full exploitation of deep architectures. While early studies on learning in structured domains can be traced back to the dawn of neural network, more careful analyses and results in problems involving the input structure, as well as on the interpretation of data in graphical domains, have only recently appeared in the literature. We have recently seen the birth of truly new foundational approaches to machine learning where functions are defined on graphs. This gives rise to a new scenario in which the typical curse of dimensionality is naturally faced by the dramatic collapse of dimensionality induced by graphical domains. These emerging foundational issues are paired with a growing interest in applications in many non-Euclidean domains that involve node classification, graph classification, graph generation, spatiotemporal forecasting, and link prediction. Examples are - amongst others - in computer vision, social networks, chemistry, and biology.

The workshop is organized the 20th of July 2019 in conjunction with the 2nd Advanced Course on Data Science & Machine Learning | July 15-19, 2019 | Certosa di Pontignano, Siena - Tuscany, Italy <https://acdl2019.icas.xyz>

Invited speakers (tentative list)

Max Welling
University of Amsterdam

Michael Bronstein
Imperial College London

David Duvenaud
University of Toronto

Franco Scarselli
University of Siena

Jure Leskovec
Stanford University

Philip S. Yu
University of Illinois Chicago

Chengqi Zhang
University of Technology Sydney

Joan Bruna
Courant Institute (NYU)

Petar Velickovic
University of Cambridge

Pietro Liò
University of Cambridge

Marco Gori
University of Siena