GrAPL 2021:

Workshop on Graphs, Architectures, Programming, and Learning

May 17, 2021

Co-Located with IPDPS 2021
Virtual

GrAPL is the result of the combination of two IPDPS workshops:
GABB: Graph Algorithms Building Blocks
GraML: Workshop on the Intersection of Graph Algorithms and Machine Learning

Message from the Workshop Chairs

GrAPL 2021: Workshop on Graphs, Architectures, Programming, and Learning, brings together two closely related topics -- how the synthesis (representation) and analysis of graphs is supported in hardware and software, and the ways graph algorithms interact with machine learning to learn structured models and representations. Driven by the natural outgrowth of a wide range of methods used in large-scale data analytics workflows, GrAPL's scope is broad. GrAPL'2021 is the third edition of the merger between two successful workshop series at IPDPS: GABB and GraML. GABB started at IPDPS'14 with a program of invited-talks and panel discussions. GraML was held at IPDPS in 2017 and 2018.

It is our great pleasure to welcome you to GrAPL 2021, the third in its series. GrAPL focuses on early dissemination of research on the theory, model-based analysis, simulation, and analysis of operational data for graph analytics and related machine learning applications. In this workshop we are interested in graphs, how their synthesis (representation) and analysis is supported in hardware and software, and the ways graph algorithms interact with machine learning. The interaction can be one of two ways – with graph algorithms benefiting learning applications or with learning used to improve graph analytic kernels.

For the second year in a row GrAPL will be a virtual workshop. Last year, the format of having the talks pre-posted on the workshop site, allowing only a very short summary presentation during the workshop session and devoting most of the session time to questions and answers worked very well, and we got strong positive feedback. We are repeating the format this year.

Putting together GrAPL 2021 has been a team effort. We are grateful to the technical program committee for providing high-quality feedback in paper reviews, as well as to the authors for the high-quality submissions. Each paper was reviewed by at least 3 (in some cases, 4) reviewers with conclusive decisions. After a thorough peer review process and rigorous discussions, the program committee selected 9 papers (6 regular and 3 short papers) from 12 submissions.

We thank Roi Lipman and Austin Benson for agreeing to deliver the two keynotes of GrAPL'21, and to their organizations for supporting them – Redis Labs for Roi Lipman, and the computer science department at Cornell University for Austin Benson.

Finally, we thank our Steering committee for their guidance, and GrAPL's Little Helpers -- Antonino Tumeo and Tim Mattson -- for their tireless efforts on all aspects of organization.

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