

Proceedings of the Tenth
International Conference on
Probabilistic Graphical Models

PGM2020 
AALBORG

Aalborg, September 23-25, 2020

Preface

Manfred Jaeger and Thomas Dyhre Nielsen

The 10th International Conference on Probabilistic Graphical Models (PGM 2020) took place September 23-25, 2020. The planning for the conference had started in the Fall of 2018, and by early spring 2020 the organizers were very happy that almost everything had fallen into place: the program committee had been assembled, the budget was budgeted, the call for papers was out, and a venue in the centre of Aalborg was booked. Then a well known virus spread around the globe, and PGM 2020, like many other conferences in 2020, had to adapt.

Not willing to give up the traditional, personal community meeting character of PGM without a fight, the organizers initially clung to the plan of having a physical conference (surely, by September things would be better!), which then morphed into a plan for a hybrid conference with both physical and online participation. A little setback came when the planned conference venue informed the organizers that it was about to quit the conference hosting business, and therefore the reservation for PGM 2020 was cancelled. Undeterred, the organizers set out in July 2020 to find a new conference venue for September. They were very lucky to find only about 30km outside of Aalborg a hotel with meeting facilities that not only was promising to stay in business until September, but also proved in the following to be very flexible to adapt to a continuously shrinking projection of the number of on-site conference participants. Thanks to a small number of very dedicated members of the PGM community, who until the very end held out plans to make the journey to Denmark, this projection hovered around 10-15, until a few days before the start of the conference it became clear that no one who was not already in the area would be able to participate in person. Nevertheless, PGM 2020 took place as a hybrid conference with a physical presence in our out-of-town venue, where the intrepid organizers were joined by participants from across the globe via videoconferencing on Zoom.

Parallel to this organizational disarray, the paper submission and reviewing process went smoothly and undisturbed. The conference received a total of 65 research paper submissions, and a further 9 submissions for the separate software demonstrations track. All submitted papers were reviewed by 3 members of the program committee. After an author rebuttal and discussion phase, 49 research papers and 9 software demonstrations were accepted for presentation at the conference. The conference program also contained the invited talk “On Computational Abstractions of Probability Distributions” by Guy van den Broeck. The PGM 2020 Best Student Paper Award was awarded to Alessandro Bregoli for the paper “Constraint-Based Learning for Continuous-Time Bayesian Networks”, co-authored with Marco Scutari and Fabio Stella.

These proceedings contain the accepted research papers, as well as short papers describing the accepted software demonstrations. Naturally for the PGM conference, core topics represented in these papers are learning, inference, and

applications of probabilistic graphical models. Also strongly represented are works on causality. Increasing attention is being given to circuit and network representations of probabilistic models.

Conference organization

Conference co-chairs

Anders Læsø Madsen, Hugin Expert & Aalborg University, Denmark

Thomas Dyhre Nielsen, Aalborg University, Denmark

Program co-chairs

Manfred Jaeger, Aalborg University, Denmark

Thomas Dyhre Nielsen, Aalborg University, Denmark

Program Committee

The PGM 2020 organizers are very grateful to the 73 members of the program committee as well as the additional reviewers for their outstanding work.

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