W16 – 3rd Workshop on Geometry Meets Deep Learning

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Welcome to the Proceedings for the 3rd Workshop on Geometry Meets Deep Learning (GMDL), held in conjunction with the European Conference on Computer Vision (ECCV) on September 14th 2018 in Munich, Germany.

The goal of this workshop series is to encourage the interplay between geometric vision and deep learning. Deep learning has emerged as a common approach to learning data-driven representations. While deep learning approaches have achieved remarkable performance improvements in most 2D vision problems, such as image classification and object detection, they cannot be directly applied to geometric vision problems due to the fundamental differences between 2D and 3D vision problems, including the non-Euclidean nature of geometric objects, higher dimensionality, and the lack of large-scale annotated 3D datasets. To address these shortcomings, developing methods that integrate geometric components with deep neural networks is a promising research direction. This workshop series aims to bring together experts from both the areas of 3D vision and deep learning to summarize recent advances, exchange ideas, and inspire new directions.

We received a total number of 26 full-paper submissions that covered a wide range of topics, such as 3D object/human pose estimation, structure from motion, 3D segmentation, and image synthesis. Each submission was sent to at least two independent reviewers who were senior researchers in the related area. According to the reviewers' suggestions and internal discussions among the workshop chairs, 18 papers were accepted to the workshop, five of which were accepted as oral presentations and the rest as poster presentations. The workshop chairs did not submit any paper to avoid conflicts in the review process.

We thank all of the reviewers and authors for their hard work. The 3rd GMDL workshop would not have been such a great success without them. We had a record attendance at the workshop, with an impressive 200 attendees filling the room during the sessions! Judging by the large attendance and enthusiasm at the workshop, there is indeed a growing awareness and interest in approaches that combine deep learning with geometric vision, and we anticipate continued growth in the area.

Best regards,
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Emanuele Rodolà
Jonathan Masci
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