

**W23 – 2nd International Workshop  
on Compact and Efficient Feature  
Representation and Learning in  
Computer Vision**

# **W23 – 2nd International Workshop on Compact and Efficient Feature Representation and Learning in Computer Vision**

Welcome to the Proceedings for the 2nd International Workshop on Compact and Efficient Feature Representation and Learning in Computer Vision, held in conjunction with the European Conference on Computer Vision on September 9th 2018.

Feature representation is at the core of many computer vision problems. In the past two decades, we have witnessed remarkable progress in feature representation and learning, from hand-crafted features to deep learning based ones. Nowadays, featuring the exponentially increasing number of images and videos, the emerging phenomenon of high dimensionality renders the inadequacies of existing approaches. There is thus a pressing need for new scalable and efficient methods that can cope with this explosion of dimensionality. In addition, with the prevalence of social media networks and portable devices which have limited computational capabilities and storage space, the demand for sophisticated real-time applications in handling large-scale visual data is rising. Therefore, there is a growing need for feature descriptors that are fast to compute, memory efficient, and yet exhibiting good discriminability and robustness. This workshop aims to stimulate researchers to present high-quality work and to provide a cross-fertilization ground for stimulating discussions on the next steps in this important research area.

In total, we received 32 full-paper submissions, each of which was sent to at least two independent reviewers in the related area. Based on the reviewers' suggestions, 19 papers were accepted to the workshop, eight of which were accepted as oral presentations and the rest as poster presentations. We had three keynote speakers in our workshop, *i.e.* Prof. Shih-Fu Chang from Columbia University, Dr. Julien Mairal from Inria, and Dr. Boqing Gong from Tencent AI Lab. They delivered three insightful speeches, covering different research directions regarding our topic. The 2nd CEFRL workshop, for the first time, announced two Best Paper Awards, *i.e.* Best Paper and Best Paper Honorable Mention. We acknowledge the financial support from the Inception Institute of Artificial Intelligence.

We sincerely thank the authors, the invited speakers, and the program committee for the valuable involvement and the active attendance at our workshop. Their participation has made the 2nd CEFRL workshop a very successful event.

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