
Tensor Methods in Computer Vision (TMCV), CVPR 2017 Workshop

Tensors have been a crucial mathematical object for several applications in computer vision and machine learning. It has been an essential ingredient in modelling latent semantic spaces, higher-order data factorization, and modelling higher-order information in visual data, and has found numerous applications in several hot topics in computer vision including, but not limited to human action recognition, object recognition, and video understanding. Moreover, tensor-based algorithms are increasingly finding significant applications in deep learning. With the rise of big data, tensors may yet prove crucial in both understanding deep architectures, as well as, may aid robust learning and generalization in inference algorithms. This workshop aims at promoting discussions among researchers investigating innovative tensor-based approaches to computer vision problems.

In this workshop, we solicit original contributions that address a wide range of theoretical and practical issues including, but not limited to:

- Tensor methods in deep learning
- Supervised learning in computer vision
- Riemannian geometry and SPD matrices
- Unsupervised feature learning and multimodal representations
- Tensors in low-level feature design
- Mid-level representations with tensor methods
- Low-rank factorisation methods and denoising approaches
- Latent topic models using tensor methods
- Tensors in optimization and dictionary learning
- Tensor hardware architectures
- Advancements in multi-linear algebra
- Applications of tensors for:
 - image/video recognition
 - object recognition
 - scene understanding
 - industrial and medical applications

Accepted papers will be allocated 5 minute spotlights and will appear in the IEEE Workshop proceedings of CVPR 2017.

Paper Formatting Guidelines:

The paper formatting should follow the CVPR 2017 guidelines described in http://cvpr2017.thecvf.com/submission/main_conference/author_guidelines. The papers can be at most 8 pages long.

Workshop Details:

Webpage: <http://users.cecs.anu.edu.au/~koniusz/tensors-cvpr17/>

Workshop Schedule: 26th July 2017

CVPR'17 homepage: <http://cvpr2017.thecvf.com/>

Location: Honolulu, Hawaii, USA

Submission Site: <https://cmt3.research.microsoft.com/User/Register?ReturnUrl=%2FTMCV2017%2F>

Important dates:

Submission Deadline : 1st of April, 2017

Decision to Authors : 1st of May, 2017

Camera Ready : 8th of May, 2017

TMCV Workshop : 26th of July, 2017

Organizing Committee:

Dr. Piotr Koniusz (Data61/Australian National University)

Dr. Anoop Cherian (Australian National University)

Prof. Fatih Porikli (Australian National University)

Invited Speakers:

- Dr. Andrzej Cichocki (Brain Science Institute RIKEN)
- Prof. Animashree Anandkumar (University of California, Irvine)
- Dr. Ivan Oseledets (Skolkovo Institute of Science and Technology)
- Dr. Lieven De Lathauwer (KU Leuven)
- Dr. Lior Horesh (IBM T.J. Watson Research Center and Columbia University)
- Dr. M. Alex O. Vasilescu (Massachusetts Institute of Technology)
- Nadav Cohen (Hebrew University)
- Prof. René Vidal (Johns Hopkins University)
- Prof. Richard Hartley (Australian National University)

Best Regards,

Piotr, Anoop, and Fatih (Organizers)