



HUMAN pose, Motion, Activities aNd Shape in 3D



IEEE CVPR 2018 Workshop
June 18th, 2018

Description and Scope

Current computer vision algorithms and deep learning-based methods can detect people in images and estimate their 2D pose with a remarkable accuracy. However, understanding humans and estimating their pose and shape in 3D from a single image or video is still an open problem. The ambiguities in lifting 2D pose to 3D, the lack of annotated data to train the algorithms in the wild and the absence of a reliable evaluation dataset in real world situations make the problem very challenging. On the other hand, there is a large body of works focusing on action recognition from 3D skeletal data obtained by Kinect or motion capture systems. There is a real need to gather the community working on these topics and discuss important issues such as evaluation protocols and lack of real data.

Our program will feature several high-quality invited talks, oral and poster presentations, and a panel discussion to identify key research questions and highlight future research directions. We invite submissions of theoretical and applied papers in all areas covered by the workshop, including, but not limited to:

- 3D pose estimation (body, hands, faces) in images and videos
- 3D human shape estimation
- 3D action recognition (from 3D skeletal data)
- 3D articulated pose tracking
- 3D pose from 2D pose
- 3D pose/shape modelling and rendering
- 3D face reconstruction
- Future 3D pose prediction
- Gesture interfaces
- Synthetic data and data annotation for 3D human pose
- Structured prediction, regression, other relevant theories/algorithms
- Applications of body pose estimation in AR/VR
- Applications of body pose estimation in robotics
- Multi-person 3D pose from images

Submission must follow the CVPR paper format and guidelines and will be handled via the CMT website: <https://cmt3.research.microsoft.com/HUMANS3D2018>. Accepted papers will appear in the CVPR proceedings, on IEEE Xplore and on the CVF website. In addition to regular papers, we also invite extended abstracts of ongoing or published work.

For more information, please visit: <https://project.inria.fr/humans2018/>

Organizers

Grégory Rogez, **Inria**, France
Javier Romero, **Amazon**, Spain

Program Committee

Antonis Argyros, **ICS-FORTH**, Greece
Federica Bogo, **Microsoft**, UK
Jean-Sébastien Franco, **Inria**, France
Juergen Gall, **Univ. of Bonn**, Germany
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Bugra Tekin, **EPFL**, Switzerland
Marco Volino, **Univ. Surrey**, UK
Philippe Weinzaepfel, **NaverLabs**, France
Christian Wolf, **INSA**, France
Xiaowei Zhou, **Zhejiang Univ.**, China

Invited Speakers

M.J. Black, **MPI-IS**, Germany
Kostas Daniilidis, **UPenn**, USA
Francesc Moreno-Noguer, **IRI**, Spain
Cordelia Schmid, **Inria**, France
Yasser Sheik, **CMU**, USA
Deva Ramanan, **CMU**, USA
Christian Theobalt, **MPII**, Germany
Christian Wolf, **INSA**, France

Important Dates

Submission deadline:	March 29th
Notification of acceptance:	April 13th
Camera ready deadline:	April 20th
Workshop:	June 18th

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