

# International Journal of Computer Vision

Special Issue on

## **Generating Realistic Visual Data of Human Behavior**

The fast and broad progress in AI has not only enabled great advances in the analysis of human behavior, but has also opened new possibilities for generating realistic human-like behavioral data. Notable examples range from the synthesis of realistic-looking images of people, to the generation of human-sounding speech, as well as synthesis of behaviors through the design of robots that are more adept in reading and mimicking human emotions. The special issue focuses on recent advances and novel methodologies for generating data containing human-like behavior.

We aim to foster research on how to *generate visual data (still images and videos) describing human behavior*, both from the applicative and methodological points of view. Indeed, on the one side we expect contributions demonstrating the interest in developing this kind of methods for various applications (autonomous systems, surveillance, etc) as well as contributions pushing the progress on computer vision tasks (activity recognition, facial analysis, group and crowd behavior analysis, etc.). On the other side, we also aim to promote methodological contributions to enhance the power of generative methods and boost their capacity. Both directions are of great interest for the computer vision community and need to be exploited in a balanced way. First steps in these directions evidence the interest of the community on the topic and a research gap that could be partially addressed with the proposed special issue.

More precisely, we seek for contributions describing new methodologies allowing to generate either static or dynamic visual representations containing or modifying attributes of humans (e.g. body, body parts, faces, etc). Contributions based on deep neural architectures are welcome, as well as methods based on parametric models. The expected topic of the contributions include, but are not limited to, following items:

- Generation of faces and modification of their attributes (e.g. age, expression).
- Generation of human bodies or crowds for behavior analysis.
- Synthesis of visual data representing individual and collective human activities.
- Deep generative models for image/video generation of human behavior.
- Parametric models for the synthesis of faces/bodies.
- Generation of multi-modal (vision and beyond) human behavioral data.
- Exploration of text-based descriptions linked with visual representation generation.
- Applications (e.g. surveillance, autonomous driving, fashion, robotics).

## Submission:

Submitted papers should present original, unpublished work, relevant to one of the topics of the Special Issue. All submitted papers will be evaluated on the basis of relevance, significance of contribution, technical quality, scholarship, and quality of presentation, by at least three independent reviewers. It is the policy of the journal that no submission, or substantially overlapping submission, be published or be under review at another journal or conference at any time during the review process.

Manuscripts will be subject to a peer reviewing process and must conform to the authors guidelines available on the IJCV website at:

<http://www.springer.com/computer/image+processing/journal/11263>

(link "Instructions for Authors" on the right panel). Manuscripts can be submitted to:

<http://visi.edmgr.com>

By selecting: S.I. : Generating Realistic Visual Data of Human Behavior

Manuscripts must be submitted before **September 30th, 2018**.

## Guest Editors:

Dr. Xavier Alameda-Pineda	Inria, France
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