CALL FOR PAPERS
International Journal of Computer Vision

Special Issue On:
Evaluation of Articulated Human Motion and Pose Estimation

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Aim and Scope: There has been a large body of work developed in the last 10 years on the human pose estimation and tracking from video. Progress however has been limited by the lack of common datasets and error metrics for quantitative comparison. The goal of this special issue is to quantitatively establish the current state of the art in the human pose estimation and tracking from single and multiple camera views, using a common benchmark (HumanEva) database and error metrics.

The HumanEva datasets (`http://vision.cs.brown.edu/humaneva/`) contain multiple calibrated video sequences (grayscale and color) that are synchronized with 3D body poses obtained from a motion capture system. The database contains multiple subjects performing a variety of common actions (e.g. walking, jogging, gesturing, etc.). Error metrics for computing error in 2D and 3D pose are also provided to allow comparison of different methods on equal footing. The dataset contains training, validation and testing (with withheld ground truth) sets. The performance on testing sequences can be evaluated using on-line evaluation service. For detailed description of the procedure that should be followed for testing and evaluation of results please see `http://www.cs.brown.edu/people/ls/ehum2/submit.html`.

This is an open call-for-papers. While submissions from the NIPS EHuM and IEEE CVPR EHuM$_2$ workshops were invited to submit extended versions of their contributions, this does not guarantee acceptance to the special issue. Submissions from outside the two workshops are also strongly encouraged and will be considered on equal grounds. All manuscripts will be reviewed according to rigorous external IJCV reviewing policy to assure quality of the contributions.

The list of possible topics of interest to the special issue includes (but is not limited to) the following:

- Tracking and pose estimation (in 2D and 3D);
- Articulated body models;
- Priors for human motion and dynamics;
- Appearance models;
- Discriminative and generative approaches for articulated pose recovery;
- Quantitative metrics for evaluation of pose estimation and tracking.

Submission Procedure: Manuscripts of full journal length with detailed experimental results using (but not limited to) HumanEva datasets are solicited for submission. Due to the retrospective and prospective nature of the special issue, we will encourage submissions of both original unpublished works as well as surveys where prior approaches are evaluated using the data and the metrics provided. The latter are expected to contain extensive experimental and discussion sections that go sufficiently beyond experiments presented in the original publication. Submissions should follow the guidelines set out by IJCV and will be reviewed accordingly. Authors should submit manuscripts via IJCV website, `http://visi.edmgr.com`, by choosing "Special Issue - EHuM" as the Article Type.

Submission Deadline: **January 11, 2008**

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