

# Computer Vision and Image Understanding

## Special Issue on Facial Behaviour Analysis

### Call for Papers

Papers are solicited for a special issue of Computer Vision and Image Understanding on Spontaneous Facial Behaviour Analysis (SFBA).

Face is not only one of the most cogent, naturally pre-eminent means used by human beings for the recognition of a person, but also for communicating emotions and intentions and in regulating interactions with the environment and other persons in the vicinity. It has been estimated that facial non-verbal behavior of the speaker, manifested by expressions, contributes more than half to the effect of the spoken message which is more than the verbal part and the vocal part. Hence, facial expressions have a key role in verbal and non-verbal communication. Furthermore, according to Psychological studies important cues for certain behaviors, such as deception and stress, are micro-expressions, since they often represent leakage to behavior control. Micro-expressions which are very rapid and subtle involuntary facial expressions, occur when an emotion is of lower intensity, and are much more difficult to read and fake. Moreover, changing facial expressions is not only a natural and powerful way of conveying personal intention, expressing emotion and regulating interpersonal communication but an important cue of personality. Automatic recognition of expressions and estimation of their intensity is an important step in enhancing the capability of human-machine/robot interfaces. In this special issue, we focus on all aspects regarding analysis of naturally occurring spontaneous facial behaviour, including theoretical foundations of spontaneous facial behaviour modeling and analysis, novel algorithms and systems, database collections and benchmarking efforts.

Contributions are particularly welcome in the following areas:

- Recognition of spontaneous facial behaviour
- Differences between spontaneous and posed expressions in 2D/3D/4D.
- Analysis, recognition and detection of micro-expressions in 2D/3D/4D,
- Analysis of facial behaviour in long term videos
- Unsupervised analysis and clustering of spontaneous facial behaviour.
- Continuous and dynamic facial behaviour analysis.
- Facial behaviour analysis for analysis of personality.
- Facial parts in spontaneous expressions.
- Facial behaviour analysis for automatic pain detection.
- Facial behaviour for automatic analysis of depression.
- Facial behaviour analysis for automatic deception detection.
- Analysis of spontaneous facial action units in 2D/3D/4D.
- Tracking of facial behaviour.

### Important Dates

Submission deadline	Friday February 27th 2015
Notification of acceptance	Friday Oct 23th 2015
Final manuscript due	Friday Nov 27nd 2015
Tentative publication date	January 2016

### Guest Editors

<b>Dr. Stefanos Zafeiriou, Lecturer</b> Imperial College London, London, UK
<b>Guoying Zhao, Associate Prof.</b> University of Oulu, Finland
<b>Dr. Irene Kotsia, Lecturer</b> Middlesex University, UK
<b>Matti Pietikainen, Professor</b> University of Oulu, Oulu, Finland
<b>Jeffrey Cohn, Professor</b> University of Pittsburgh and CMU, USA
<b>Rama Chellappa, Professor</b> University of Maryland, USA