

# IEEE Transactions on Pattern Analysis and Machine Intelligence Special Issue:

## The Computational Face

### Aims and scope

Automated face analysis is a research topic that has received so much attention from the Computer Vision and Pattern Recognition communities in the past, that research progress has made some think that problems such as face recognition or face detection are solved. However, many aspects of face analysis remain open problems, including the implementation of *large-scale* face detection and recognition methods for images captured in real-life applications. These include 3D face analysis and face pose estimation from 2D; face analysis under extreme pose variation and occlusion, identity recognition, emotion and micro-expression recognition, and analysis of dynamics of facial expression. Luckily, these are also areas in which the community is making rapid progress enabled by more powerful methods (e.g. Deep Learning) that push the state-of-the-art. Among real-world applications are security and video surveillance, human computer/robot interaction, interpersonal communication, entertainment, commerce, and assistive technologies for education and physical and mental health.

### Topics and guidelines

Manuscripts making **fundamental or practical** contributions on Computational Face Analysis are solicited, including, but not limited to, the following topics:

- Deep learning for face analysis
- Face detection
- Face alignment and tracking
- Face recognition/verification,
- Representation learning for face analysis
- Facial attribute detection including age, gender, ethnicity recognition
- Multimodal approaches to face analysis
- Facial expression analysis
- Large scale computational approaches to face analysis
- 3D face analysis, 3D face analysis from 2D
- Application of automatic face analysis

This issue builds on the ChaLearn Looking at People series of academic challenges and workshops at CVPR 2011, CVPR 2012, ICPR 2012, ICMI 2013, ECCV 2014, CVPR 2015, ICCV2015 and CVPR 2016 (<http://gesture.chalearn.org>). Past participation in ChaLearn is not required but we would like to encourage submissions from past participants and attendees. All submissions will undergo the rigorous TPAMI review process. Please refer to the TPAMI website for detailed instructions on paper submission <https://www.computer.org/web/tpami>

### Important dates:

Submission system starts receiving submissions:	January 15th, 2017
Paper submission deadline:	February, 15th, 2017
Tentative paper acceptance/rejection notification:	July, 1st, 2017
Tentative paper publication:	November, 15th, 2017

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