

# **EXPRESSIVE 2019**

## **ACM/EG Expressive Symposium**

**Genoa, Italy  
May 5-6, 2019**

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## Preface

The 8th ACM/Eurographics Expressive Symposium (Expressive 2019) explores the capacity of computer graphics, animation, and computational media to be used in artistic, aesthetic, and creative ways. The field can be seen as encompassing problems in understanding, communication, and interaction.

Expressive understanding integrates aspects of computer science, philosophy, psychology, and the fine, applied, and performing arts, investigating theoretical approaches that further our understanding of aesthetic evaluation, perception and meaning. Expressive communication focuses on imagery and motion which is expressive rather than photorealistic, although it may incorporate realistic elements. Expressive interaction explores models, algorithms, and technologies for sketch-based interfaces, particularly classifying and recognizing hand-drawn shapes as a way to create or edit digital models, text, mathematics, or 3D shapes.

The Expressive Symposium fosters a dialogue between graphics researchers, human computer interaction researchers, and digital artists to explore the intersection of these expressive domains. This year marks the culmination of the multi-year union of three separate events: Computational Aesthetics (CAe), Non-Photorealistic Animation and Rendering (NPAR), and Sketch-Based Interfaces and Modelling (SBIM). The Expressive Symposium will carry on the tradition of multi-disciplinary excellence established by these conferences. In addition to research contributions by scientists, the works presented in Expressive are often tightly coupled with the community of digital artists who employ research techniques in their craft. To encourage these collaborations, the Expressive Symposium incorporates artworks as part of its program alongside technical papers. All accepted works are presented on the same stage to foster dialogue and better understand each individual work in the larger context of the scientific and creative communities.

In the present 8th edition of the symposium, we compiled an exciting program with 14 technical papers, five artworks, two posters, two demos, and one keynote.

We received 22 submissions of scientific contributions, which have been reviewed by the 50 members of the Program Committee. Without their excellent and hard work, this symposium would have not been possible. Submissions were in one of four categories: research, production, creative, and meta. We also solicited submissions of works and interactive demos from artists for presentations and an exhibition.

Expressive has the pleasure to welcome Aaron Hertzmann from Adobe Research as this year's keynote speaker. Aaron has maintained a longstanding association with the Expressive conference and with NPAR before it, including service as co-chair in 2004. He has helped advance the field not just with his inspiring research, but with his broad view of grand challenges in expressive communication. He has written extensively about the ultimate abilities and limitations of computers as creative agents, with a particular focus on imagery generated via deep learning.

The realization of this symposium is due to many people. We would like to thank the General Chairs, Joaquim Jorge, Chiara Eva Catalano, and Lyn Bartram, for their guidance and continuous promotion of the event. We are also grateful to Daniel Berio and Pedro Cruz (Arts Chairs), Jose Echevarria (Posters and Demos Chair), and Amir Semmo (Publicity Chair) for their hard work in shaping this program. Finally, we would like to thank Stefanie Behnke for her help in running the online review management system and producing these proceedings.

Thank you for joining us at Expressive 2019. Enjoy the conference, and enjoy Genoa.

Stephen DiVerdi  
Craig S. Kaplan  
Angus Forbes  
Expressive 2019 Program Chairs

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## **Keynote**

### **Can Computers Create Art?**

**Aaron Hertzmann**

Principal Scientist, Adobe Research

#### **Abstract**

I discuss whether computers, using Artificial Intelligence, could create art. I review important points in the history of automation in art, examining the hype and reality of AI tools for art together with predictions about they will be used. The nature of current computer-generated art is discussed, and then it is hypothesized when we might ever credit an AI with authorship of art.

#### **Short Biography**

Aaron Hertzmann is a Principal Scientist at Adobe Research, an ACM Fellow, and an affiliate faculty at University of Washington and University of Toronto. He received a BA in Computer Science and Art & Art History from Rice University in 1996, and a PhD in Computer Science from New York University in 2001. He was a Professor at University of Toronto for 10 years, and has also worked at Pixar Animation Studios, University of Washington, Microsoft Research, Mitsubishi Electric Research Lab, and Interval Research Corporation.