Proceedings SCA 2019

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Preface

2019 marks the 18th annual ACM SIGGRAPH / Eurographics Symposium on Computer Animation (SCA), which continues to be the leading conference focused on research in all aspects of Computer Animation. This year's program once again featured a stellar selection of research papers, posters, Keynotes, and Invited Speakers. Two innovations for 2019 were a new Sketches program for exciting work in progress, and the opportunity for a large subset of accepted SCA papers to appear in the journal Proceedings of the ACM in Computer Graphics and Interactive Techniques (PACMCGIT).

There were 39 papers were submitted for consideration for SCA 2019. Each submission underwent rigorous review by the international program committee consisting of 49 members of the computer animation community. The PC ultimately selected 18 high-quality papers to appear at the conference. We are grateful to the committee members for their significant contributions of time and effort to ensure the success of the reviewing process. The resulting set of papers captures the full breadth of modern computer animation research, including both physically-based and machine-learning approaches for diverse animation problems involving muscles, faces, crowds, clothing, fluids, solids, and more. These proceedings contain six full papers presented at the conference. An additional 12 papers were accepted to appear in a PACMCGIT special issue on SCA, after a secondary round of significant revisions and review by the PC.

It was our great pleasure to have the University of British Columbia's Uri Ascher and Harvard University's L. Mahadevan as our two Keynote Speakers at this year's conference; each is a world-renowned expert in his respective discipline. Our talented array of Invited Speakers consisted of Mridul Aanjaneya (Rutgers University), Chenfanfu Jiang (University of Pennsylvania), Sophie Jörg (Clemson University), Mélina Skouras (Inria Grenoble Rhône-Alpes), Steve Tonneau (University of Edinburgh), and Etienne Vouga (UT Austin).

This year's conference also saw the introduction of the new Sketches program, with the aim of highlighting and fostering discussion of novel work-in-progress through short talks. Authors submitted a 4-page summary of their work, and each was reviewed by three members of the PC. Four sketches were selected for presentations. (These do not appear in the proceedings; it is our hope that they will, having benefited from discussions at SCA, eventually appear as full papers in a conference or journal.) We also have four exciting posters covering various topics, whose abstracts are included in the proceedings and the ACM and EG Digital Libraries.

The papers program at the conference also featured presentations by authors of five animation papers that have previously appeared in two leading computer graphics journals: IEEE Transactions on Visualization and Computer Graphics (TVCG), and Computer Graphics Forum (CGF). Specifically, 2 TVCG papers and 3 CGF papers were invited to appear at the conference.

In closing, we wish to thank again all of the SCA 2019 program committee members for their reviewing efforts, particularly considering the tight reviewing timeline. We are extremely grateful to Stephen Spencer for his guidance and diligent work on these proceedings and all the papers. We also wish to thank Nils Thuerey and Florence Bertails-Descoubes for their support and advice. Finally, industry support is often essential to the successful execution of a high-quality conference, and SCA 2019 is no exception: we would like to offer our special thanks to NCSOFT, Activision, Shining3D, and Disney Research for their generous contributions which helped make the conference possible.

Jin Huang and Christopher Batty Program Chairs

Sung-Hee Lee and Craig Schroeder Conference Chairs

Tamar Shinar Posters Chair