Lecture Notes in Computer Science **10582**

Commenced Publication in 1973
Founding and Former Series Editors:
Gerhard Goos, Juris Hartmanis, and Jan van Leeuwen

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Next Generation Computer Animation Techniques

Third International Workshop, AniNex 2017
Bournemouth, UK, June 22–23, 2017
Revised Selected Papers

Springer

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ISSN 0302-9743 ISSN 1611-3349 (electronic)
Lecture Notes in Computer Science
ISBN 978-3-319-69486-3 ISBN 978-3-319-69487-0 (eBook)
https://doi.org/10.1007/978-3-319-69487-0

Library of Congress Control Number: 2017957544

LNCS Sublibrary: SL6 – Image Processing, Computer Vision, Pattern Recognition, and Graphics

Printed on acid-free paper

This Springer imprint is published by Springer Nature
The registered company is Springer International Publishing AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

The Third AniNex workshop was held during June 22–23, 2017, at Bournemouth University, UK. The main theme is on the development and exploitation of next-generation computer animation and computer graphics techniques. The workshop is supported by the People Programme (Marie Curie Actions) of the European Union's Seventh Framework Programme FP7/2007-2013/ under REA grant agreement number 612627. The workshop was held jointly with the 11th International Conference on E-Learning and Games (Edutainment 2017).

The workshop has been devoted to "user-centered computer animation techniques for next-generation digital creation and modeling." It has reflected the current challenges in digital creation and modeling, with emphasis on two main cores: "dynamics and interaction of virtual objects" and "virtual character modeling and animation," where many novel methods and techniques have been developed, and other elements such as rendering and geometric modeling, virtual reality, and augmented reality applications are also incorporated. The focus on user-centered experience has distinguished this book from pure theoretical text books, providing case studies and practical reports on developing easy-to-use tools/algorithms in computer graphics. The use of image-based synthesis of geometry and graphical content, novel meshless simulation, machine-learning algorithms, and data-driven approaches is inevitable and has become an embedded part of the computer animation production pipelines.

The topics are structured according to four main themes:

- Simulation and Rendering for Computer Animation
- Character Modeling and Dynamics
- User-Centered Design and Modeling
- Computer Animation Systems and Virtual Reality Based Applications

We recognize the contribution and continuous support of the consortium of AniNex, the EU FP7-funded International Research Staff Exchange Scheme under REA grant agreement number 612627. The consortium includes Bournemouth University, University of Geneva, Tsinghua University, Zhejiang University, and the Institute of Software, Chinese Academy of Sciences. We deeply thank the International Program Committee for their tremendous support and all reviewers for their diligent work. We are grateful for Shujie Deng and other colleagues and students for their kind assistance and support during the workshop.

August 2017

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