ACM SIGGRAPH / Eurographics Symposium of Computer Animation 2020

Virtual Symposium
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J. Bender and T. Popa
(Guest Editors)

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Keynote

Physics Simulations: Is it Hollywood Magic or Rocket Science

Ken Museth

Abstract

This keynote will focus on different aspects of physics simulations in computer graphics. We will take a critical look at how one can assess the accuracy of such simulations and discuss some examples from academia, visual effects, and rocket science. Finally, we'll give a glimpse of some of the activities in relation to physics simulations at NVidia.

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Keynote

Fake Faces

Chris Landreth

Abstract

In the last two decades, CG character animation has become a victim of its own success. Twenty years ago, recreating human beings in virtual 3D space was a fantasy, the Holy Grail of computer animation. Today, that fantasy is a reality that surrounds us in films, games, and TV commercials. A consequence of this success has been a sense of alienation and distrust we feel when we see realistic synthetic humans. This experience is often called the "Uncanny Valley." Today this distrust is justifiably even more pronounced, as realistic but not-actually-real humans populate video footage we now call "deepfake". Chris has had more than 25 years of animating realistic human characters and has learned some surprising things about these synthetic humans, particularly about their faces. If these CG characters are well made, they can lie like humans - and we can see it in those faces. If they are not well made, they can only lie like machines - and we see it in their code. In this presentation, Chris will show you the anatomy of a CG character's face and how it can lie to you - but also how it can convey, in unlikely ways, beauty and truth.