

The Transregional Collaborative Research Center (SFB-TRR) 161 invites all colleagues and interested people to the upcoming talk about the research in the field of Visual Computing.

## We announce the following talk

**28-04-2016**

03:00 p.m.

University of Stuttgart  
VISUS-Building  
Allmandring 19, Vaihingen  
Room 00.012

**Bernhard Thomaszewski, Disney Research Zurich**

### Computational Tools for Personalized Design and Digital Fabrication

As a key advantage over conventional manufacturing technologies, 3D printing has the ability to create complexity and variety at no extra cost. This fact indicates the possibility of a mass customization culture in which we personalize designs according to our needs and preferences and fabricate them at home on a 3D printer. But while there is already a thriving market of consumer-level 3D printers, the tools that would empower average users to design 3D-printable content are still largely lacking.

In this talk, I will highlight a number of challenges that arise when creating such tools and illustrate some key concepts on the example of physical characters such as mechanical toys, robotic creatures, and other mechanically-functional models. I will also talk about our work on design tools for physical surfaces such as balloon-like inflatables and structures made from interlocking elements.

#### About the speaker

Bernhard Thomaszewski is a Research Scientist at Disney Research Zurich, where he leads the group on Computational Design and Digital Fabrication. He obtained his Master's degree (Diplom) and PhD (Dr. rer. nat.) in Computer Science from the University of Tübingen. Prior to joining Disney Research, he was a postdoctoral researcher at ETH Zürich, where he is an adjunct lecturer today. Bernhard's research interests are in the areas of computational design, digital fabrication, and computer animation. His current focus is on design tools that allow non-expert users to create functional content for digital fabrication devices.

For more details see: <https://graphics.ethz.ch/~bthomasz/>