

# Expressive Mini-Seminar



**We are honored and happy to invite to  
an Expressive Mini-Seminar!**

- Where: Auditorium VilVite, Thormøhlens gate 51
- When: Tuesday June 25th 2013 @14:15 – 16:00

Invited talks:

**“EXPRESSIVE: Towards Expressive Modeling  
of Dynamic 3D Worlds”**

**Marie-Paule Cani**

Professor of Computer Science  
Grenoble Institute of Technology & Inria.



and:

**"Having Fun with Tables: Adding more than two  
dimensions to interfaces"**

**Joaquim A Jorge**

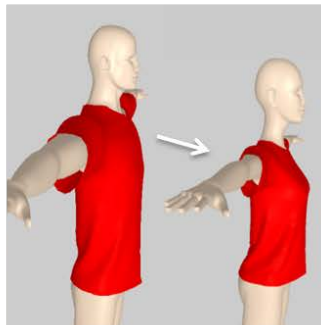
Professor at Instituto Superior Tecnico (IST/UTL),  
School of Engineering, Technical  
University of Lisboa



## “EXPRESSIVE: Towards Expressive Modeling of Dynamic 3D Worlds”

Despite our great expressive skills, we humans lack an easy way of conveying the 3D shapes we imagine, even more so for dynamic shapes that change over time. Over centuries we relied on drawing and sculpture to convey shapes. However, these tools require significant expertise and time investment, especially when one aims to describe complex or dynamic shapes. With the advent of virtual environments one would expect digital modeling to replace these traditional tools. Unfortunately, conventional techniques in the area have failed, since even trained computer artists still create with traditional media and only use the computer to reproduce already designed content.

Could digital media be turned into a tool, even more expressive and simpler to use than a pen, to convey and refine both static and dynamic 3D shapes ? This would make shape design directly possible in virtual form, from early drafting to progressive refinement and finalization of an idea. To this end, models for shape and motion need to be redefined from a user-centered perspective. This talk will present our recent work towards “responsive shapes”, namely high level models that take form, refine, move and deform based on user intent. The latter is expressed through intuitive interaction gestures based on sketching or sculpting paradigms. The general methodology will be illustrated by various examples, such as modeling hair, garments or skin for virtual characters, or modeling natural shapes such as trees.



## “Having Fun with Tables: Adding more than two dimensions to interfaces”

Work on interactive tabletops and surfaces has focused mostly on two-dimensional issues, such as multi-finger gestures and tangible interaction. Interesting as it is however, this picture is missing several dimensions. I will describe work on 2D and 3D semi-immersive environments and present novel on-and-above-the-surface techniques based on bi-manual models to take advantage of the continuous interaction space for creating and editing 3D models in stereoscopic environments. I will also discuss means to allow for more expressive interactions, including novel uses of sound and combining hand and finger tracking in the space above the table with multitouch gestures on its surface continuously. These combinations can provide alternative design environments and allow novel interaction modalities.

