

EG2019 Think Tanks: Special Sessions to promote discussion around emerging topics challenges in Computer Graphics

TT 1 - CreativeAI - AI meets Graphics Challenges and Opportunities Ahead

Organizers: Niloy Mitra (University College London), **Marie-Paule Cani** (Ecole Polytechnique)

Tuesday, 07 May 2019, 9:30-10:30 - Room Ponente

In Computer Graphics, many traditional problems are now better handled by deep learning-based data-driven methods. In an increasing variety of problem settings, deep networks are now state-of-the-art, beating dedicated hand-crafted methods by significant margins. While this has been the case for tasks where sufficient volumes of high-quality supervision data exist, the implications of AI, more specifically machine learning, remains unclear in the broader context of creative content creation. The Think Tank will discuss questions like 'whether increased availability of data-driven methods will make the creation of new contents easier or harder?' What will future creative workflows look like? What will be the role of the designer or director in the context of content-creation in such envisioned workflows'? Which new challenges will CG applications raise for ML methods? Finally, will data-driven approaches make us more creative, or reduce our creativity by making us lazy?

TT2 - The future of avatar-human interaction in VR, AR and mixed reality

Organizers: Nuria Pelechano (Universitat Politècnica de Catalunya), **Yiorgos Chrysanthou**, (University of Cyprus), **Julien Pettré** (INRIA-Rennes)

Wednesday, 08 May 2019, 9:30-10:30 - Room Libeccio

As HMDs and AR technology have become increasingly popular and cheaper, the number of applications is also rapidly increasing. An important remaining challenge with such environments is the faithful representation of virtual humanoids. Not necessarily their visual appearance as much as the naturalness of their motion, behavior and responses. Simulating and animating correctly virtual humanoid for immersive VR and AR sits at the crossing between several research fields: Computer Graphics, Computer Animation, Computer Vision, Machine Learning and Virtual Reality and Mixed Reality. This Think Tank aims at discussing the integration of the latest advancements in the fields mentioned above with the purpose of enhancing VR, AR and mixed reality for populated environments. This session should open the discussion regarding how these different fields could work together to achieve real breakthroughs that go beyond the current state of the art in interaction between avatars and humans.