



Mathematics and CS Seminar

Computational projection mapping

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Projection mapping dynamically augments the appearance of a real surface by digital image projection. It has been applied in many application fields such as medicine, entertainment, and product design. However, the projected results are always suffered from the reflectance properties of the surface such as spatially varying textures, subsurface scattering, and inter-reflection, and also from projector's technical limitations such as low dynamic range, narrow depth-of-field, and latency. To resolve these issues and enhance the image quality of projection mapping, several technologies based on computational display approaches have been developed. Computational display is the joint design of hardware with computational algorithms. A unique and interesting property of computational display for projection mapping is that the hardware we try to optimize includes not only optics but also surfaces, while normally only optics has been considered in computational display researches for other displays. This talk introduces a series of computational projection mapping researches, and also discuss its new application field, human augmentation.

Friday, October 13, 2017 01:00pm - 02:00pm

Mondi Seminar Room 1, Central Building



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