



学术讲座

主 题: Non-Photorealistic Rendering of Images

报 告 人: Paul Rosin 博士, 教授, 卡迪夫大学 (英国罗素集团名校)

时间地点: 2015年7月18日 10:00-11:30, 软件学院311

简介及摘要:

Computer Scientists have been inspired by artists to develop many non-photorealistic rendering techniques that can take an input image and produce a wide variety of artistic effects such as oil painting, watercolour, pointillist, etc. Their application can simply be for fun (e.g. to make consumer photographs more interesting), but there are also many other applications such as scientific visualization, film production effects, technical illustration, etc.

My talk will overview several NPR techniques developed by myself and Yu-Kun Lai, that aim to generate results that are relatively minimal rendering, in terms of using a combination of refined lines and regions and a small number of tones or colours. The aim is to achieve a rendering that is abstracted but retains sufficient elements from the original image so that (for example) it can be used to generate recognisable portraits.

报告人简介:

Professor Paul Rosin is a full professor in School of Computer Science & Informatics at Cardiff University. He received his Ph.D. in Information Engineering from City University in 1988. This was followed by a research fellow position at Guy's Hospital, London, and lecturer at Curtin University of Technology, Perth, Australia, and research scientist at the Institute for Remote Sensing Applications, Joint Research Centre, Ispra, Italy. Returning to the UK he was lecturer at the Department of Information Systems and Computing, Brunel University before joining the School of Computer Science & Informatics at Cardiff University. His research interests are wide, and include: low level image processing, performance evaluation, shape analysis, facial analysis, medical image analysis, 3D mesh processing, cellular automata and non-photorealistic rendering. Much of this work has been performed in multidisciplinary collaborations such as: the perception of trustworthiness from smiles, segmentation of 3D OCT scans of retinas, determining the effectiveness of surgery from facial morphology and temporal dynamics, analysing the effects of alcohol on crowd dynamics and violence and digitally unrolling of fragile parchments from 3D X-ray scans. He has published over 100 journal papers on these topics.

