

TP.CG.07

Theory and Practice of Computer Graphics

The 25th Annual Conference of the Eurographics UK Chapter

University of Wales, Bangor, UK
13-15th June 2007

Hosted by the School of Computer Science, University of Wales, Bangor
in co-operation with Eurographics

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Honorary Conference Chairs:

Ken Brodlie, University of Leeds
Terry Hewitt, University of Manchester
Anne Mumford, Loughborough University
Rob Fletcher, University of York

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CONFERENCE PROGRAMME

Wednesday 13th June 2007

12:00 Lunch available at Friiddoedd Site

13:15 Coach from Friiddoedd Site to CAST

13:30 Welcome and Opening remarks – Lecture Theatre, CAST

KEYNOTE TALK – Sponsored by vizNET – Lecture Theatre

13:35 Focus+Context in Illustrative Visualization

Eduard Gröller, Associate Professor
Institute of Computer Graphics and Algorithms (ICGA),
Vienna University of Technology

Followed by Announcement of vizNET 2007 Visualization Showcase Winners

Plenary Session 1: RENDERING – Lecture Theatre

14:35 Perception-Based Lighting-by-Example

Hai Nam Ha and Patrick Olivier

15:05 Simulating Film Grain using the Noise-Power Spectrum

Ian Stephenson and Arthur Saunders

15:35 Coffee break

Opportunity to view vizNET Visualization Showcase entries

Parallel Session 2: COMPUTER GRAPHICS PRACTICE - First Floor Lecture Room

16:00 A 3D Visualization Environment Modelling the Evolution of North-West Europe since the Last Glacial Maximum

Adam Wainwright, Thomas Varsamidis, and James Scourse

16:20 Using 3D Visualisation in the Repair of Intra-articular Fractures

A.F. Wilson, P.B. Musgrove, K.A. Buckley, G. Pearce, and J Geoghegan

16:40 Steering Chemistry in the Right Direction!

R.A. Davies

17:00 Anatomy Education using Rapid Prototyping

Rhys G. Thomas, Nigel W. John, and Ik Soo Lim

Parallel Session 3: SIMULATION AND ANIMATION 1 - Lecture Theatre

16:00 Real-time Fluid Simulation Coupled with Cloth

Takahiro Harada, Seiichi Koshizuka, and Yoichiro Kawaguchi

16:30 The Dynamic Animation of Ambulatory Arthropods

Llyr ap Cenydd and William Teahan

17:00 GPU-Based Wind Animation of Trees

Jo Skjermo

17:30	Coach to Friddoedd Site
Evening Event	
18:30	Coach pick up at Friddoedd Site
	Networking Social Evening @ Galeri Caernarfon
	Including Computer Graphics Quiz and special "Welsir" event.

Thursday 14th June 2007

08:45	Coach pick up at Friddoedd Site
Parallel Session 4: SIMULATION AND ANIMATION 2 – Lecture Theatre	
09:00 MTCut: GPU-based Marching Tetra Cuts	Eva Monclús, Isabel Navazo, and Pere-Pau Vázquez
09:30 Stability Analysis of Filtered Mass-Spring Systems	Alexandre Ahmad, Samir Adly, Olivier Terraz, and Djamohid Ghazanfarpour
10:00 A Distance Hierarchy to Detect Collisions Between Deformable Objects	Francisco Madera, Andy Day, and Stephen Laycock
10:30	<i>Coffee break</i>
Parallel Session 5: WORK-IN-PROGRESS PAPERS 1 - First Floor Lecture Room	
09:00 Seamless Mesh Stitching Using Curve Approximation	Like Gobeawan, Shuhong Xu, and Stephen John Turner
09:20 Towards Individualized Ageing Functions for Human Face Images	David W. Hunter and Bernard P. Tiddeman
09:40 A Flexible Approach to High Performance Visualization enabled Augmented Reality	C. J. Hughes and N. W. John
10:00 Data Driven Graphical Applications: A Fluid approach	A. Jones and C. Mantle, and D. Cornford
10:20	<i>Coffee break</i>
Plenary Session 6: INTERACTION – Lecture Theatre	
11:00 A Statistically-Assisted Sketch-Based Interface for Creating Arbitrary 3-dimensional Faces	Orn Gunnarsson and Steve Maddock
11:30 Delivering Effective and Usable Interactive 3D Visualization on Lightweight Mobile Devices	I.R. Holmes and R.S. Kalawsky

KEYNOTE TALK – Lecture Theatre	
12:00 Perceiving depth in virtual scenes: Focus cues do matter	Dr Simon Watt School of Psychology, University of Wales, Bangor
13:00	<i>Lunch break</i>
Parallel Session 7: VISUALIZATION – Lecture Theatre	
14:00 Speeding Up Isosurfacing: The Matryoshka Algorithm	Sérgio Lopes, Adriano Lopes, and M. Próspero dos Santos
14:30 An Immersive Granular Material Visualization System with Haptic Feedback	Enkhtuvshin Dorjotov, Bedřich Beneš, and Krishna Madhavan
15:00 Bifocal Radial Visualization of Intranet Search Results using Image Caching	Andreas. J. Zschimmer and Jonathan C. Roberts
15:30	<i>Coffee break</i>
Parallel Session 8: WORK-IN-PROGRESS PAPERS 2 - First Floor Lecture Room	
14:00 A case-study of inconsistent surface reconstruction in recent literature resulting from Octree rotation-variance	David M. Hughes and Ik Soo Lim
14:20 Interval-Based Motion Blending for Hand Grasping	Matt Brisbin and Bedřich Beneš
14:40 Visualization Notations, Models and Taxonomies	Ken Brodlie and Nurul Mohd Noor
15:00 Level of Detail for Physically Based Fire	Odd Erik Gundersen and Lars Tangvald
15:20 Streaming and Data Enrichment	Mary J. McDerby, William T. Hewitt, and Martin J. Turner
15:40	<i>Coffee break</i>
Plenary Session 9: DISTRIBUTED RENDERING – Lecture Theatre	
16:00 A novel control mechanism for distributed stream rendering	J. T. O'Brien and R. S. Kalawsky
16:30 Adaptive Infrastructure for Visual Computing	K.W. Brodlie, J. Brooke, M. Chen, D. Chisnall, C. Hughes, N.W. John, M.W. Jones, M. Riding, N. Roard, M. Turner, and J.D.Wood
17:00 Viewing 0.3Tb Heart Simulation Data At Your Desk	I. J. Grimstead, S. Kharche, H. Zhang, N. J. Avis, and D. W. Walker

AGM – Lecture Theatre	
17:30 EGUK AGM	
	Coach to Friddoedd Site at 17.30 and 18.15
Evening Event	
18:45	Coach from Friddoedd site to CAST
19:30 Eurographics UK Chapter Jubilee Dinner	
	Music from renowned harpist Eilir Wyn Hughes

Friday 15th June 2007	
08:45	Coach from Friddoedd Site
Plenary Session 10: 2D GRAPHICS – Lecture Theatre	
09:00	
09:30 Scanline edge-flag algorithm for antialiasing	
	Kiia Kallio
10:00 Advantages of allowing Hexagonal Pixels to be used as a Boundary Description Format	
	Martin J. Turner
10:30	<i>Coffee break</i>
KEYNOTE TALK – Lecture Theatre	
11:00 Acquisition and Modeling of Global Light Transport using Reflectance Fields	
	Hendrik Lensch, MPI Informatik, Germany
12:00	Closing Session
	Including Award Presentations
12:30	Lunch
	Coaches to Bangor Railway Station will be available