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

Proceedings published by EG and placed on the EG Digital Library

Honorary Conference Chairs:

Ken Brodlie, University of Leeds
Terry Hewitt, University of Manchester
Anne Mumford, Loughborough University
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CONFERENCE PROGRAMME

Wednesday 13th June 2007

12.00	**Lunch available at Ffriddoedd Site**
13:15	Coach from Ffriddoedd Site to CAST
13:30	**Welcome and Opening remarks – Lecture Theatre, CAST**

KEYNOTE TALK – Sponsored by vizNET – Lecture Theatre – Chair I S Lim	
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 – Chair: K W Brodlie	
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 - Rm 101 – Chair: M Turner	
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 - L Theatre – Chair: WT Hewitt	
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 Ffriddoedd Site	3

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

Thursday 14th June 2007
08.45 Coach pick up at Ffriddoedd Site

Parallel Session 4: SIMULATION AND ANIMATION 2 – L Theatre – Chair: MW Jones	
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 Djamchid Ghazanfarpour
10:00	**A Distance Hierarchy to Detect Collisions Between Deformable Objects**
	Francisco Madera, Andy Day, and Stephen Laycock
10:30	*Coffee break*

Parallel Session 5: WORK-IN-PROGRESS PAPERS 1 – Room 101 – Chair: L Lever	
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	*Coffee break*

Plenary Session 6: INTERACTION – Lecture Theatre – Chair: M McDerby	
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 – Chair: NW John

12:00	**Perceiving depth in virtual scenes: Focus cues do matter**
	Dr Simon Wattt School of Psychology, University of Wales, Bangor
13:00	*Lunch break*

Parallel Session 7: VISUALIZATION – Lecture Theatre – Chair: R Fletcher

14:00	**An Immersive Granular Material Visualization System with Haptic Feedback**
	Enkhtuvshin Dorjgotov, Bedřich Beneš, and Krishna Madhavan
14:30	**Speeding Up Isosurfacing: The Matryoshka Algorithm**
	Sérgio Lopes, Adriano Lopes, and M. Próspero dos Santos
15:00	**Bifocal Radial Visualization of Intranet Search Results using Image Caching**
	Andreas. J. Zschimmer and Jonathan C. Roberts
15:30	*Coffee break*

Parallel Session 8: WORK-IN-PROGRESS PAPERS 2 – Room 101 – Chair: A Day

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	**Visualization Notations, Models and Taxonomies**
	Ken Brodlie and Nurul Mohd Noor
14:40	**Level of Detail for Physically Based Fire**
	Odd Erik Gundersen and Lars Tangvald
15:00	**Streaming and Data Enrichment**
	Mary J. McDerby, William T. Hewitt, and Martin J. Turner
15:20	**Interval-Based Motion Blending for Hand Grasping**
	Matt Brisbin and Bedřich Beneš
15:40	*Coffee break*

Plenary Session 9: DISTRIBUTED RENDERING – L Theatre – Chair: JC Roberts

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 Ffriddoedd Site at 17.30 and 18.15
Evening Event	
18:45	Coach from Ffriddoedd site to CAST
19:30	**Eurographics UK Chapter Jubilee Dinner**
	Music from renowned harpist Einir Wyn Hughes

Friday 15th June 2007	
08:45	Coach from Ffriddoedd Site
Plenary Session 10: 2D GRAPHICS – Lecture Theatre – Chair: T Varsamidis	
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	*Coffee break*
KEYNOTE TALK – Lecture Theatre – Chair: D Duce	
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