STEPHEN J. CHENNEY

University of Wisconsin at Madison
Computer Sciences Department
1210 W. Dayton St
Madison, WI 53706-1685

Phone: (608) 239-8554
Fax: (608) 262-9777
Email: schenney@acm.org
http://www.cs.wisc.edu/∼schenney

Research Interests

Techniques for the creation, control and rendering of computer animation for entertainment, training and experimental research. Human perception of animated motion and the usefulness of animation for demonstration and learning. Physically-based image generation. User interfaces for 3D geometric and dynamic modeling.

Education

- University of California at Berkeley. Computer Science. PhD May 2000. *Controllable and Scalable Simulation for Animation.* Adviser: David Forsyth. Nominated by U.C. Berkeley for an ACM thesis award.
- University of California at Berkeley. Computer Science. MSc May 1997.
- University of Sydney, Australia. Computer Science. BSc Honours Ist class. May 1995.

Professional Experience

- University of Wisconsin at Madison, Computer Sciences Department. Assistant Professor, August 2000 — May 2005.
- MERL, a Mitsubishi Electric Research Lab. Summer intern Jun 1999 — Aug 1999.
- UC Berkeley, EECS Computer Science Division. Graduate Student Researcher. Jan 1996 — May 2000.

Publications

- Yu-Chi Lai, Stephen Chenney and Shaohua Fan, *Group Motion Graphs*, ACM SIGGRAPH/Eurographics Symposium on Computer Animation, 2005, pp 281–290.
- Shaohua Fan, Stephen Chenney and Yu-Chi Lai, *Metropolis Photon Sampling with Optional User Guidance*, Eurographics Symposium on Rendering, 2005, pp 127–138.
- Lin Shi, Yizhou Yu, Christopher Wojtan and Stephen Chenney, *Controllable Motion Synthesis in a Gaseous Medium*, The Visual Computer, Vol. 21, No. 7, 2005, pp.474-487
- Mankyu Sung, Michael Gleicher and Stephen Chenney, *Scalable Behaviors for Crowd Simulation*, Computer Graphics Forum, vol. 23, no. 3 (Proceedings of the Eurographics Annual Conference), 2004, pp 519-528.

- Stephen Chenney, *Flow Tiles*, ACM SIGGRAPH/Eurographics Symposium on Computer Animation, 2004, pp 233-242.
- Andrew Selle, Alex Mohr and Stephen Chenney, *Cartoon Rendering of Smoke Animations*, Proceedings of NPAR 2004 (Non-Photorealistic Animation and Rendering), 2004, pp 57-60.
- Matt Anderson, Eric McDaniel and Stephen Chenney, *Constrained Animation of Flocks*, ACM SIGGRAPH/Eurographics Symposium on Computer Animation, 2003, pp 286-297.
- Stephen Chenney, Mark Pingel, Rob Iverson and Marcin Szymanski *Simulating Cartoon Style Animation*, Proceedings of NPAR 2002 (Non-Photorealistic Animation and Rendering), 2002, pp 133-138.
- Stephen Chenney, Okan Arikan and David Forsyth, *Proxy Simulations for Efficient Dynamics*, Proceedings of Eurographics 2001: Short Presentations, 2001.
- Okan Arikan, Stephen Chenney and David Forsyth, *Efficient Multi-Agent Path Planning*, Proceedings of the 2001 Eurographics Workshop on Animation and Simulation, 2001, pp 151–162.
- Stephen Chenney and D. A. Forsyth, *Sampling Plausible Solutions to Multi-body Constraint Problems*, Proceedings of SIGGRAPH 2000, pp 219–228.
- Stephen Chenney, Jeffrey Ichnowski and David Forsyth, *Dynamics Modeling and Culling*, IEEE Computer Graphics and Applications, 19(2), March/April 1999, pp 79–87.
- Stephen Chenney, Jeffrey Ichnowski and David Forsyth, *Efficient Dynamics Modeling for VRML and Java*, VRML 98, Proceedings of the 1998 Symposium on the Virtual Reality Modeling Language, pp 15–24.
- Stephen Chenney and David Forsyth, *View-Dependent Culling of Dynamic Systems in Virtual Environments*, Proceedings 1997 Symposium on Interactive 3D Graphics, pp 55-58.

Invited Presentations

- SIGGRAPH 2005 Posters, *Fast Dynamic Fracture of Brittle Objects*, with Ohan Oda.
- SIGGRAPH Course Presenter, *Plausible Simulation*, 2003.
- Workshop on Intelligent Human Augmentation and Virtual Environments (WIHAVE). “Simulation Culling and Level-Of-Detail.” Poster, 2003.
- SIGGRAPH Course Presenter, *Super-Size It! Scaling Up to Massive Virtual Worlds*, July 2002.
- Game Developers Conference, *Simulation Level-of-Detail and Culling*, San Jose, CA, March 2001. Accompanied by a paper in the conference proceedings.
- SIGGRAPH 2000 Technical Sketches, Stephen Chenney, Okan Arikan and D. A. Forsyth, *Scalable Motion Simulation*, SIGGRAPH 2000 Conference Abstracts and Applications, page 254, 2000.
- SIGGRAPH 1999 Technical Sketches, Stephen Chenney, *Asynchronous, Adaptive, Rigid-Body Simulation*, SIGGRAPH 1999 Conference Abstracts and Applications, page 233, 1999.

- SIGGRAPH 1998 Technical Sketches, Stephen Chenney and D. A. Forsyth, *Directing Physics*, SIGGRAPH 1998 Conference Abstracts and Applications, page 256, 1998.

Awards

- SACM "COW" Student's Choice Professor of the Year Award, 2005. SACM is UW-Madison's chapter of the Association for Computing Machinery.

Grants

- "Mix-n-Match Motion: Animating Virtual Experiences", NSF Graphics, Symbolic and Geometric Computation. Co-PI with Michael Gleicher. 2002–2005.

Software

Author of *Sced*, an open source constraint-based geometric modeling system.

Service

- SIGGRAPH 2005 Posters Committee
- Program committee, 2005 Symposium on Computer Animation.
- Program committee, 2005 Eurographics Conference
- Program committee, 2005 Symposium for Interactive 3D Graphics and Games.
- SIGGRAPH 2004 Posters Committee
- Program committee, 2004 Symposium on Computer Animation.
- Program committee, 2003 Symposium on Computer Animation.
- Program committee, 2003 Symposium for Interactive 3D Graphics.
- Program committee, 2002 Symposium on Computer Animation.
- NSF grant review panel, February 2002.
- Reviews for ACM Transactions on Graphics, ACM SIGGRAPH, Symposium on Interactive 3D Graphics, Computer Animation, Symposium on Computer Animation, Eurographics, Graphics Interface, Graphical Models, Journal of Graphics Tools, Non-Photorealistic Animation and Rendering.

Professional Societies

- ACM and ACM SIGGRAPH