

Doug L. James

Professional Activities

- Chair, ACM SIGGRAPH/Eurographics Symposium on Computer Animation 2008
- Chair, ACM Student Research Competition for ACM SIGGRAPH 2008
- Associate Editor, *ACM Transactions on Graphics*
- Member, Editorial Board, *Graphical Models*
- Member, Program Committee, ACM SIGGRAPH 2007
- Member, Program Committee, ACM SIGGRAPH ASIA 2008
- Member, Program Committee, ACM SIGGRAPH/Eurographics Symposium on Computer Animation 2007

Publications

- "Mesh Ensemble Motion Graphs: Data-driven Mesh Animation with Constraints," *ACM Transactions on Graphics*, 26(4), October 2007. (with C.D. Twigg, A. Cove and R.Y. Wang.)
- "Many-Worlds Browsing for Control of Multibody Dynamics," *ACM Transactions on Graphics (ACM SIGGRAPH 2007)*, 26(3), July 2007. (With C.D. Twigg.)
- "FastLSM: Fast Lattice Shape Matching for Robust Real-Time Deformation," *ACM Transactions on Graphics (ACM SIGGRAPH 2007)*, 26(3), July 2007. (With A.R. Rivers.)
- "Time-critical distributed contact for 6-DoF haptic rendering of adaptively sampled reduced deformable models," In Proc. of *ACM SIGGRAPH/Eurographics Symposium on Computer Animation (SCA 2007)*, San Diego, CA, August 2007. (with J. Barbič) (*Best paper award*)
- "Fast Modal Sounds with Scalable Frequency-Domain Synthesis," *ACM Transactions on Graphics (ACM SIGGRAPH 2008)*, 27(3), August 2008 (with N. Bonneel, G. Drettakis, N. Tsingos and I. Viaud-Delmon).
- "Wavelet Turbulence for Fluid Simulation," *ACM Transactions on Graphics (ACM SIGGRAPH 2008)*, 27(3), August 2008 (with T. Kim, N. Thuerey and M. Gross).
- "Backward Steps in Rigid Body Simulation," *ACM Transactions on Graphics (ACM SIGGRAPH 2008)*, 27(3), August 2008 (with C.D. Twigg).
- "Simulating Knitted Cloth at the Yarn Level," *ACM Transactions on Graphics (ACM SIGGRAPH 2008)*, 27(3), August 2008 (with J. Kaldor and S. Marschner).
- "Six-DoF haptic rendering of contact between geometrically complex reduced deformable models," *IEEE Transactions on Haptics* (with J. Barbič) (to appear).

Lectures

- "Toward Multi-Sensory Physical Simulation," Dept. Of Computer Science, New York University (Feb 2007); also Theoretical and Applied Mechanics Seminar, Cornell University (Feb 2007).
- "Many-Worlds Browsing: Controlling physics via interactive search," Google Inc., Mountain View, CA (May 2007).
- "Physics control as information browsing, and recent work on real-time deformation" (and related talks), Computer Science Department, California Institute of Technology; Computer Science, Stanford University; Computer Science and Electrical Engineering, Berkeley University; Pixar Animation Studios (May 2007).
- "Mechanical Highlights from Interactive and Emerging Multi-sensory Digital Physics," Mechanical and Aerospace Engineering Colloquium Series, Cornell University, March 2008.

Awards and Honors

- Fellow, Alfred P. Sloan Research (2006-2008)
- Recipient, NSF CAREER Award, “Precomputing Data-driven Deformable Systems for Multimodal Interactive Simulation”
- Citation, One of *Popular Science* magazine's “Brilliant 10” young scientists for 2005
- Best Paper Award, ACM/Eurographics Symposium on Computer Animation 2007 (with Jernej Barbic)