

Reference List 15-464 / 15-664 Feb 26

Wrinkles

Müller, Matthias, and Nuttapong Chentanez. "Wrinkle meshes." In *Proceedings of the 2010 ACM SIGGRAPH/Eurographics symposium on computer animation*, pp. 85-92. Eurographics Association, 2010. <https://www.youtube.com/watch?v=jyFk18Kbkcs>

Cutler, Lawrence D., Reid Gershbein, Xiaohuan Corina Wang, Cassidy Curtis, Erwan Maigret, Luca Prasso, and Peter Farson. "An art-directed wrinkle system for CG character clothing and skin." *Graphical Models* 69, no. 5 (2007): 219-230. <http://www.sciencedirect.com/science/article/pii/S1524070306000622>

Kavan, Ladislav, Dan Gerszewski, Adam W. Bargteil, and Peter-Pike Sloan. "Physics-inspired upsampling for cloth simulation in games." *ACM Transactions on Graphics (TOG)* 30, no. 4 (2011): 93. <http://www.jarmilakavanova.cz/ladislav/papers/cup-sig11/cup-sig11.htm>

Fracture

A go-to paper for fracture:

O'brien, James F., and Jessica K. Hodgins. "Graphical modeling and animation of brittle fracture." In *Proceedings of the 26th annual conference on Computer graphics and interactive techniques*, pp. 137-146. ACM Press/Addison-Wesley Publishing Co., 1999. <http://graphics.berkeley.edu/papers/Obrien-GMA-1999-08/index.html>

Making it work in real-time:

Parker, Eric G., and James F. O'Brien. "Real-time deformation and fracture in a game environment." In *Proceedings of the 2009 ACM SIGGRAPH/Eurographics Symposium on Computer Animation*, pp. 165-175. ACM, 2009. <http://graphics.berkeley.edu/papers/Parker-RTD-2009-08/index.html>

Here's a variation – better boundaries?

Chen, Zhili, Miaojun Yao, Renguo Feng, and Huamin Wang. "Physics-inspired adaptive fracture refinement." *ACM Transactions on Graphics (TOG)* 33, no. 4 (2014): 113. <http://web.cse.ohio-state.edu/~whmin/publications.html>

A different take on real-time fracture:

Müller, Matthias, Nuttapong Chentanez, and Tae-Yong Kim. "Real time dynamic fracture with volumetric approximate convex decompositions." *ACM Transactions on Graphics (TOG)* 32, no. 4 (2013): 115. <http://dl.acm.org/citation.cfm?id=2461934>

This recent paper shows what can be done if we give up real-time:

Tobias Pfaff, Rahul Narain, Juan Miguel de Joya, and James F. O'Brien. "**Adaptive Tearing and Cracking of Thin Sheets**". *ACM Transactions on Graphics*, 33(4):xx:1–9, July 2014. <http://graphics.berkeley.edu/papers/Pfaff-ATC-2014-07/>

Denting and Bending

Patkar, Saket, Mridul Aanjaneya, Aric Bartle, Minjae Lee, and Ronald Fedkiw. "Efficient Denting and Bending of Rigid Bodies." Symposium on Computer Animation (SCA) 2014. <http://pages.cs.wisc.edu/~aanjaneya/>