

References 15-869 1/22/14

Paper presentations are coming up, and we talked about **how to give a good talk**. Here is the slide deck I showed, which has a lot of other good references:

<http://www.slideshare.net/cameraculture/how-to-give-a-good-talk>

This **is the primary paper** we covered today:

B. Jones, J. Popovic, J. McCann, W. Li, and A. W. Bargteil, "**Dynamic Sprites.**" *Motion in Games 2013*. <http://sealab.cs.utah.edu/Papers/Jones-2013-DS/>

Which I used in part as an excuse to cover a backdrop of work leading up to this result.

A **classic historical graphic reference** (1976!) is the following:

Burtnyk, Nester, and Marcelli Wein. "**Interactive skeleton techniques for enhancing motion dynamics in key frame animation.**" *Communications of the ACM* 19, no. 10 (1976): 564-569.

Remarkably, you can still find it online, e.g., here:

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.151.8234&rep=rep1&type=pdf>

The techniques described in this paper were used **in the short animation film La Faim (Hunger)** by Peter Foldes (1974). You can find it on youtube here:

<http://www.youtube.com/watch?v=vwU3UARE6yc>

More modern references begin in 2000, with the following two papers on **Artistically Defined Shape Spaces**:

Ngo, Tom, Doug Cutrell, Jenny Dana, Bruce Donald, Lorie Loeb, and Shunhui Zhu. "**Accessible animation and customizable graphics via simplicial configuration modeling.**" In *Proceedings of the 27th annual conference on Computer graphics and interactive techniques*, pp. 403-410. 2000. <https://graphics.stanford.edu/papers/simplicial-animation/SIGGRAPH-2000-ngo-et-al-cameraready.pdf>

Bregler, Christoph, Lorie Loeb, Erika Chuang, and Hrishu Deshpande. "**Turning to the masters: motion capturing cartoons.**" *ACM Transactions on Graphics (TOG)* 21, no. 3 (2002): 399-407. <http://movement.stanford.edu/tooncap/>

However, these results do not incorporate any physical behaviour, such as response to collisions, and in the last few years, there has been a bit of work that integrates physics with deformation spaces for **Artist Directed Physical Deformation Spaces**

Martin, Sebastian, Bernhard Thomaszewski, Eitan Grinspun, and Markus Gross. "**Example-based elastic materials.**" In *ACM Transactions on Graphics (TOG)*, vol. 30, no. 4, p. 72. ACM, 2011. <http://graphics.ethz.ch/publications/papers/paperMar11.php>

Faster implementation of the same videos!

Koyama, Yuki, Kenshi Takayama, Nobuyuki Umetani, and Takeo Igarashi. "**Real-time example-based elastic deformation.**" In *Proceedings of the 11th ACM SIGGRAPH/Eurographics conference on Computer Animation*, pp. 19-24. Eurographics Association, 2012. <http://www-ui.is.s.u-tokyo.ac.jp/~koyama/project/ExampleBasedShapeMatching/>

Schumacher, Christian, Bernhard Thomaszewski, Stelian Coros, Sebastian Martin, Robert Sumner, and Markus Gross. "**Efficient simulation of example-based materials.**" In *Proceedings of the ACM SIGGRAPH/Eurographics Symposium on Computer Animation*, pp. 1-8. Eurographics Association, 2012. <http://www.inf.ethz.ch/personal/scoros/publications.html>