

## 16-899: Reference list for Wednesday, April 6<sup>th</sup>

I spoke about various thoughts I have had about grasp quality and creating families of good grasps from examples. Maybe I should call this “One-Shot Learning” and it would get more attention ☺

N. S. Pollard, 1996. [Synthesizing Grasps from Generalized Prototypes](#), *Proceedings of the IEEE International Conference on Robotics and Automation*, Minneapolis, MN.

N. S. Pollard, 1994. [Parallel Methods for Synthesizing Whole-Hand Grasps from Generalized Prototypes](#), *MIT Artificial Intelligence Laboratory Technical Report AI-TR 1464*.

N. S. Pollard and J. K. Hodgins, 2002. [Generalizing Demonstrated Manipulation Tasks](#), *Workshop on the Algorithmic Foundations of Robotics (WAFR '02)*, Nice, France, December 2002. ([web page](#))

N. S. Pollard, 2004. [Closure and Quality Equivalence for Efficient Synthesis of Grasps from Examples](#), *International Journal of Robotics Research* 23(6), 595--614, June 2004.

N. S. Pollard and A. Wolf, 2004. [Grasp synthesis from example: tuning the example to a task or object](#), *Workshop on Multi-point Interaction in Robotics and Virtual Reality*, IEEE International Conference on Robotics and Automation, pp 77-90, 2004.

The brief animation I showed for scaling motions comes from these references:

N. S. Pollard and F. Behmaram-Mosavat, 2000. [Force-Based Motion Editing for Locomotion Tasks](#). *Proceedings of the IEEE International Conference on Robotics and Automation*, San Francisco, CA, April 2000.

N. S. Pollard, 1999. [Simple Machines for Scaling Human Motion](#). *Eurographics Workshop on Animation and Simulation*, Milan, Italy, 1999.

The more brute force style selection of grasps that considers physics and uncertainty is here:

J. Kim, K. Iwamoto, J. J. Kuffner, Y. Ota, and N. S. Pollard, 2013. [Physically-based Grasp Quality Evaluation under Pose Uncertainty](#), *IEEE Transactions on Robotics*, 29(6), 1424--1439, December 2013.