15-464/15-664 Reference List for April 28ᵗʰ 2021

We began by talking about state machine based control, beginning with papers from the 90's from Marc Raibert and Jessica Hodgins and her students:

Raibert, Marc H., and Jessica K. Hodgins. "Animation of dynamic legged locomotion." In *ACM SIGGRAPH Computer Graphics*, vol. 25, no. 4, pp. 349-358. ACM, 1991.
http://dl.acm.org/citation.cfm?id=122755&dl=ACM&coll=DL&CFID=657285216&CFTOKEN=27654732

The video I showed can be found here: http://www.ai.mit.edu/projects/leglab/simulations/otr/otr.html

Jessica K. Hodgins, Wayne L. Wooten, David C. Brogan, and James F. O'Brien. 1995. Animating human athletics. In *Proceedings of the 22nd annual conference on Computer graphics and interactive techniques* (SIGGRAPH '95), Susan G. Mair and Robert Cook (Eds.). ACM, New York, NY, USA, 71-78.
DOI=10.1145/218380.218414 http://doi.acm.org/10.1145/218380.218414
The video can be found here: http://graphics.cs.cmu.edu/?p=689

We then reviewed the SIMBICON paper and some follow-on work related to that paper.

Yin, KangKang, Kevin Loken, and Michiel van de Panne. "Simbicon: Simple biped locomotion control." In *ACM Transactions on Graphics (TOG)*, vol. 26, no. 3, p. 105. ACM, 2007.
http://www.cs.ubc.ca/~van/papers/Simbicon.htm

Coros, Stelian, Philippe Beaudoin, and Michiel van de Panne. "Generalized biped walking control." *ACM Transactions on Graphics (TOG)*. Vol. 29. No. 4. ACM, 2010.
http://www.cs.ubc.ca/~van/papers/2010-TOG-gbwc/

https://www.youtube.com/watch?v=lOxeyyooDmw
https://www.youtube.com/watch?v=MHj8RDfyqP0

Finally, we took a look at one of the related papers from this past year, which tackles the problem of creating a physically simulation version of motion that may come from other sources (e.g., a motion graph or neural network algorithm).

Won, Jungdam, Deepak Gopinath, and Jessica Hodgins. "A scalable approach to control diverse behaviors for physically simulated characters." *ACM Transactions on Graphics (TOG)* 39, no. 4 (2020).

https://research.fb.com/publications/a-scalable-approach-to-control-diverse-behaviors-for-physically-simulated-characters/