

Reference List 15-464 / 15-664 March 1, 2021

We focused today on the following paper:

Holden, Daniel, Oussama Kanoun, Maksym Perepichka, and Tiberiu Popa. "Learned motion matching." *ACM Transactions on Graphics (TOG)* 39, no. 4 (2020): 53-1.

<https://dl.acm.org/doi/10.1145/3386569.3392440>

<https://montreal.ubisoft.com/en/introducing-learned-motion-matching/>

You can access the authors' SIGGRAPH talk through the first link above and all the materials and detailed description / demos through the second link.

We began by talking about the base Motion Matching algorithm, which is described in this talk, given at the Game Developer's Conference (GDC) in 2016:

Simon Clavet. "Motion Matching and The Road to Next-Gen Animation." In Proc. of GDC 2016.

<https://www.gdcvault.com/play/1023280/Motion-Matching-and-The-Road>

https://ubm-twvideo01.s3.amazonaws.com/o1/vault/gdc2016/Presentations/Clavet_Simon_MotionMatching.pdf

We also went through an overview of the Inertialization approach to blending animations.

David Bollo. 2016. Inertialization: High-Performance Animation Transitions in 'Gears of War'. In Proc. of GDC 2018.

<https://www.gdcvault.com/play/1025331/Inertialization-High-Performance-Animation-Transitions>

<https://www.youtube.com/watch?v=GEAVEGxkx8U>

Here are a couple of blogs that supplement our discussion about motion matching.

<https://www.xsens.com/cases/transforming-game-characters-with-motion-matching-for-unity>

<https://www.vg247.com/2019/09/30/the-last-of-us-part-2-motion-matching-fluid-animation-without-sacrificing-realism/>