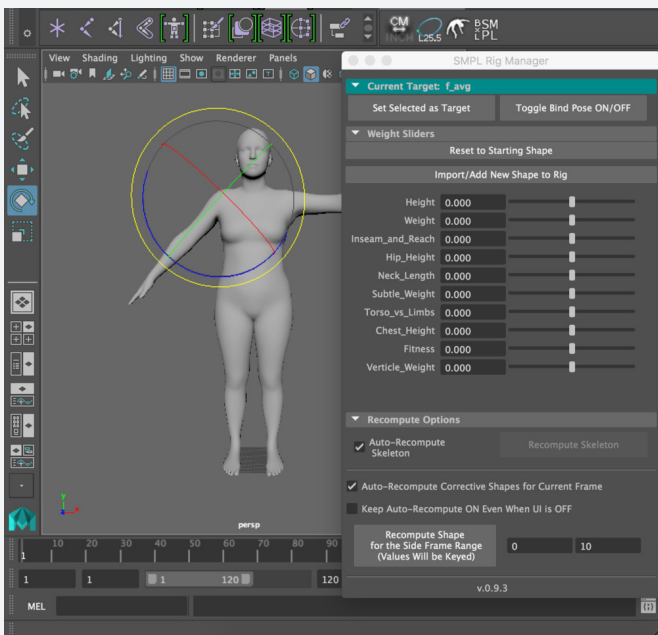# BODY x LABS

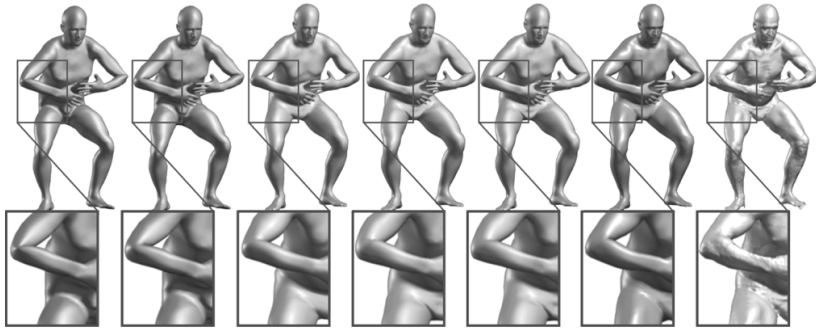## Using AI to Streamline Your Animation Workflow

Body Labs accurately digitizes 3D digital body shape using artificial intelligence (AI) and machine learning algorithms to empower you to design, animate and process highly realistic 3D digital characters without time-consuming toolsets.

Automated Realistic Pose Deformation

With Body Labs, you can now easily repose, resize and animate characters inside of Maya® on the fly. Body Labs uses AI — trained on thousands of scans of real human body shapes and poses — to empower you to instantly recompute corrective blend shapes tied directly to the joint angle of the skeletal rig. There's no need for tedious and time consuming pose space deformation toolsets, corrective sculpting tools or targeting brushes. With one click get realistic pose deformation that fits within your current workflow.

Reference: SMPL: A Skinned Multi-Person Linear Model, Loper, Matthew and Mahmood, Naureen and Romero, Javier and Pons-Moll, Gerard and Black, Michael J., ACM Trans. Graphics (Proc. SIGGRAPH Asia), November 2015 (Article)

The Power of Our New SMPL Model

Traditional methods such as basic linear blend skinning (LBS) models relate vertices to the underlying skeletal structure. LBS models are widely supported by game engines or animation software, but they result in unrealistic deformations — especially at the joints. With our new SMPL (Skinned Multi-Person Linear) model, we formulate pose blend shapes as a linear function of the joints. Because these elements of the rotation are bounded, so are the resulting deformations. The result, is a solution that saves you time and money throughout the animation process.

For more information visit:

bodylabs.com/solutions

Body Labs Inc.

Founded in 2013 and headquartered in Manhattan, Body Labs collects, digitizes and organizes all of the data and information related to human body shape, pose and motion. Its mission is to transform the human body into a digital platform upon and around which goods and services can be designed, produced, bought and sold.