We started by talking about the research of Jernej Barbic and his students on detailed simulation models for the human hand.

[http://barbic.usc.edu/hand-mri/](http://barbic.usc.edu/hand-mri/)

We then moved on to talk about modeling the shape of the human body. I started by mentioning the SCAPE project from 2005:

[http://robotics.stanford.edu/~drago/Projects/scape/scape.html](http://robotics.stanford.edu/~drago/Projects/scape/scape.html)

This was followed by the SMPL project at Max Planck, which attempted to make such tools more accessible and useful to animators by making all deformations in the same style as Linear Blend Skinning.

[https://smpl.is.tue.mpg.de/](https://smpl.is.tue.mpg.de/)

Subsequent research by the same group added dynamics with a finite element outer layer of skin:

[https://ps.is.tuebingen.mpg.de/publications/meekyoung-siggraph](https://ps.is.tuebingen.mpg.de/publications/meekyoung-siggraph)

... and addressed the problem of capturing clothing.

[https://scanimate.is.tue.mpg.de/](https://scanimate.is.tue.mpg.de/)

The group’s research web pages are interesting to browse: 
[https://ps.is.tuebingen.mpg.de/research_fields/virtual-humans](https://ps.is.tuebingen.mpg.de/research_fields/virtual-humans)
We concluded with a very quick look at the following paper, which uses an inner volumetric muscle model to facilitate growing a range of body types, all of which can be physically simulated.

https://www.cs.utah.edu/~ladislav/saito15computational/saito15computational.html