Computer Graphics Seminar

MTAT.03.305

Spring 2016

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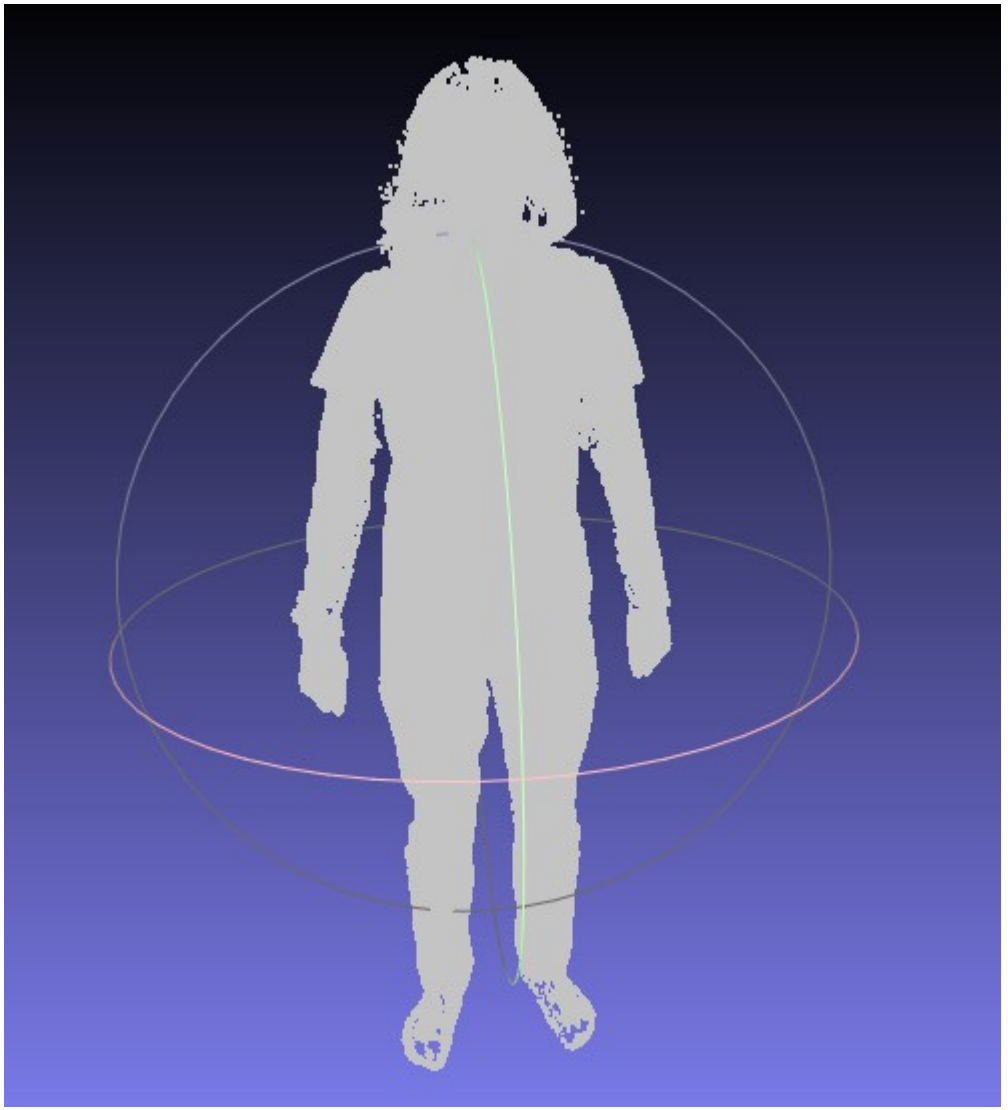
toetab Skype™

Raimond Tunnel

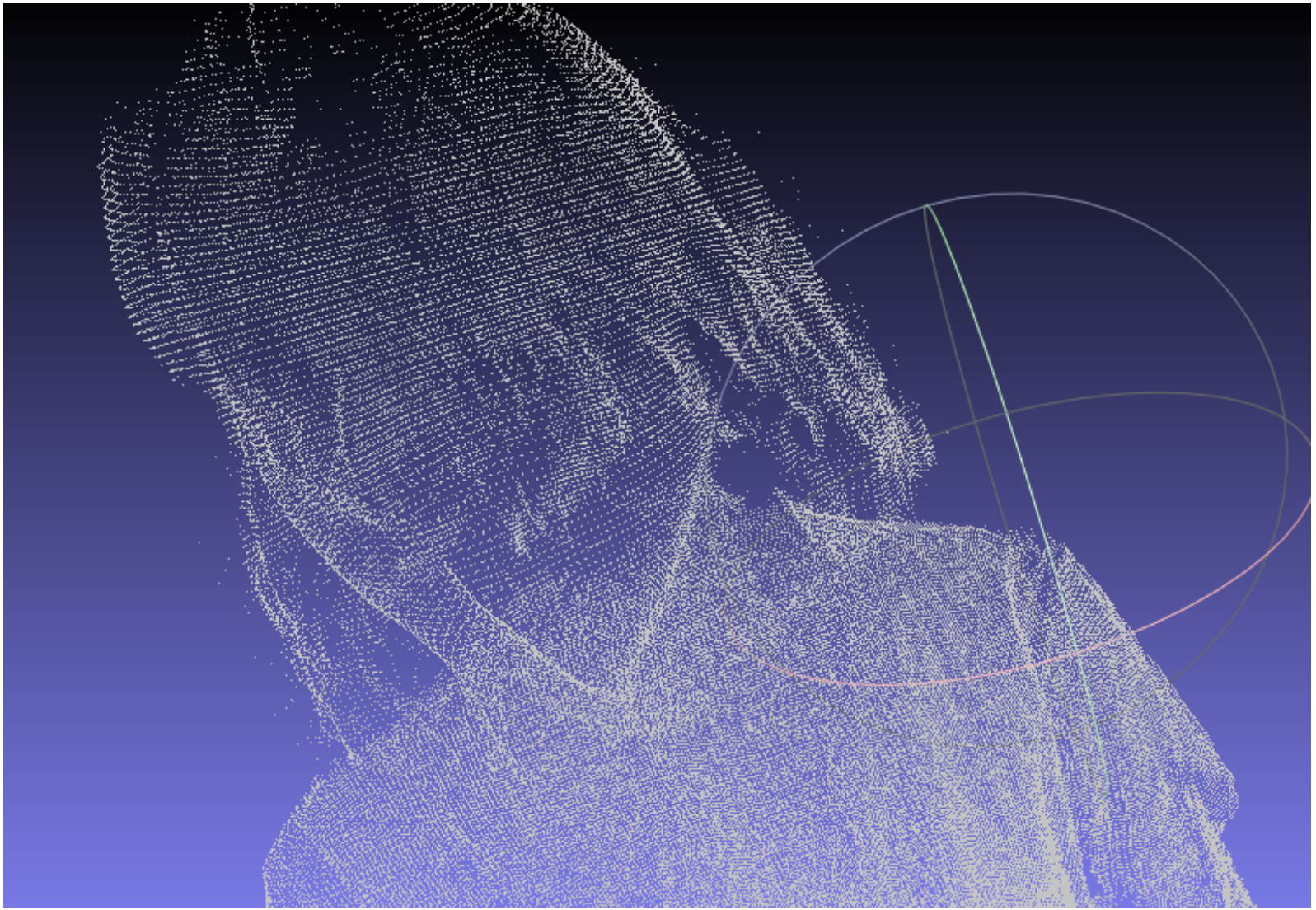
So you have some scan data...

- First step, get a MeshLab
  (or some alternative point cloud manipulation software)
- http://meshlab.sourceforge.net/

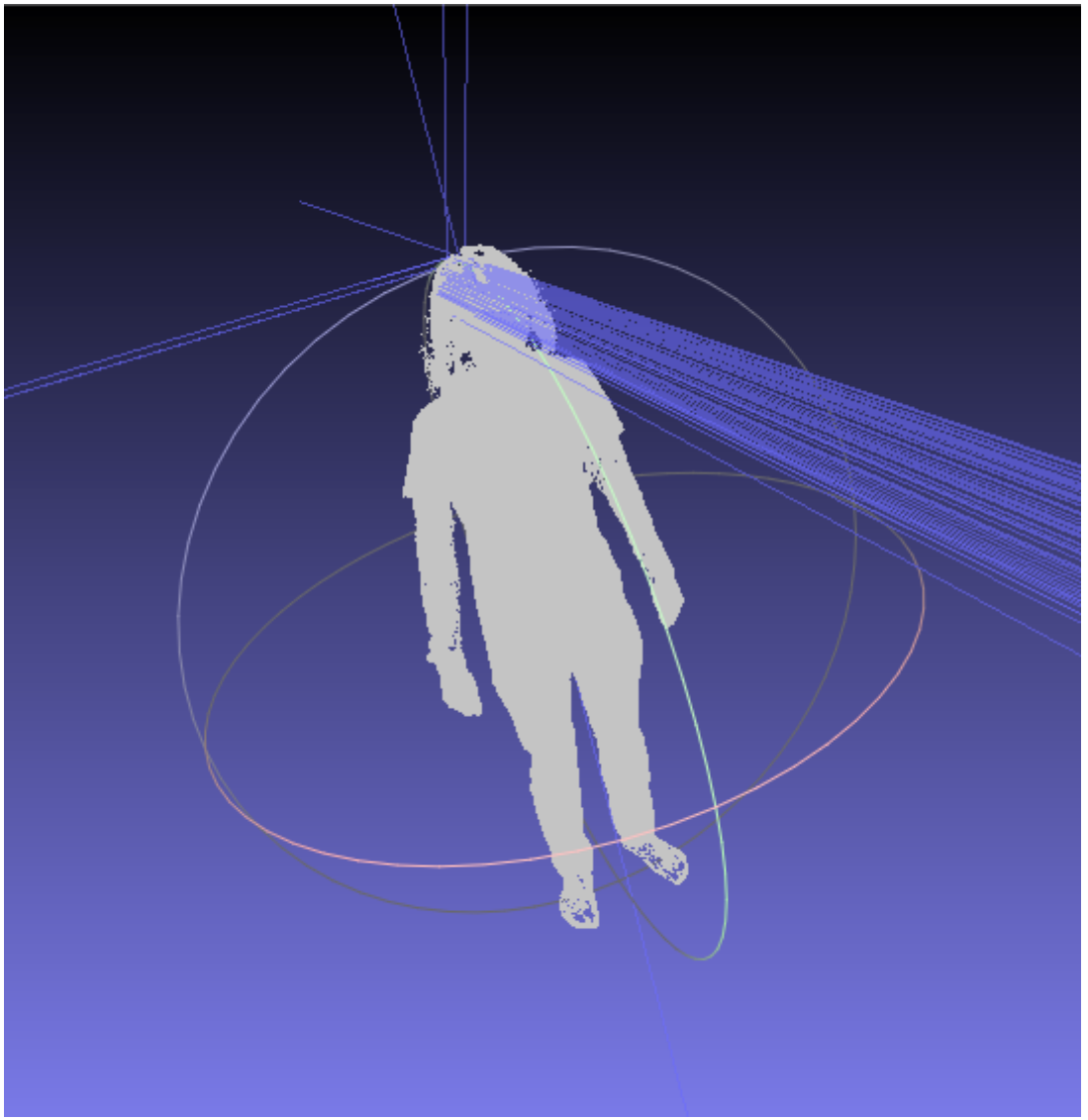
Import Your Point Cloud



It Really Is a Point Cloud

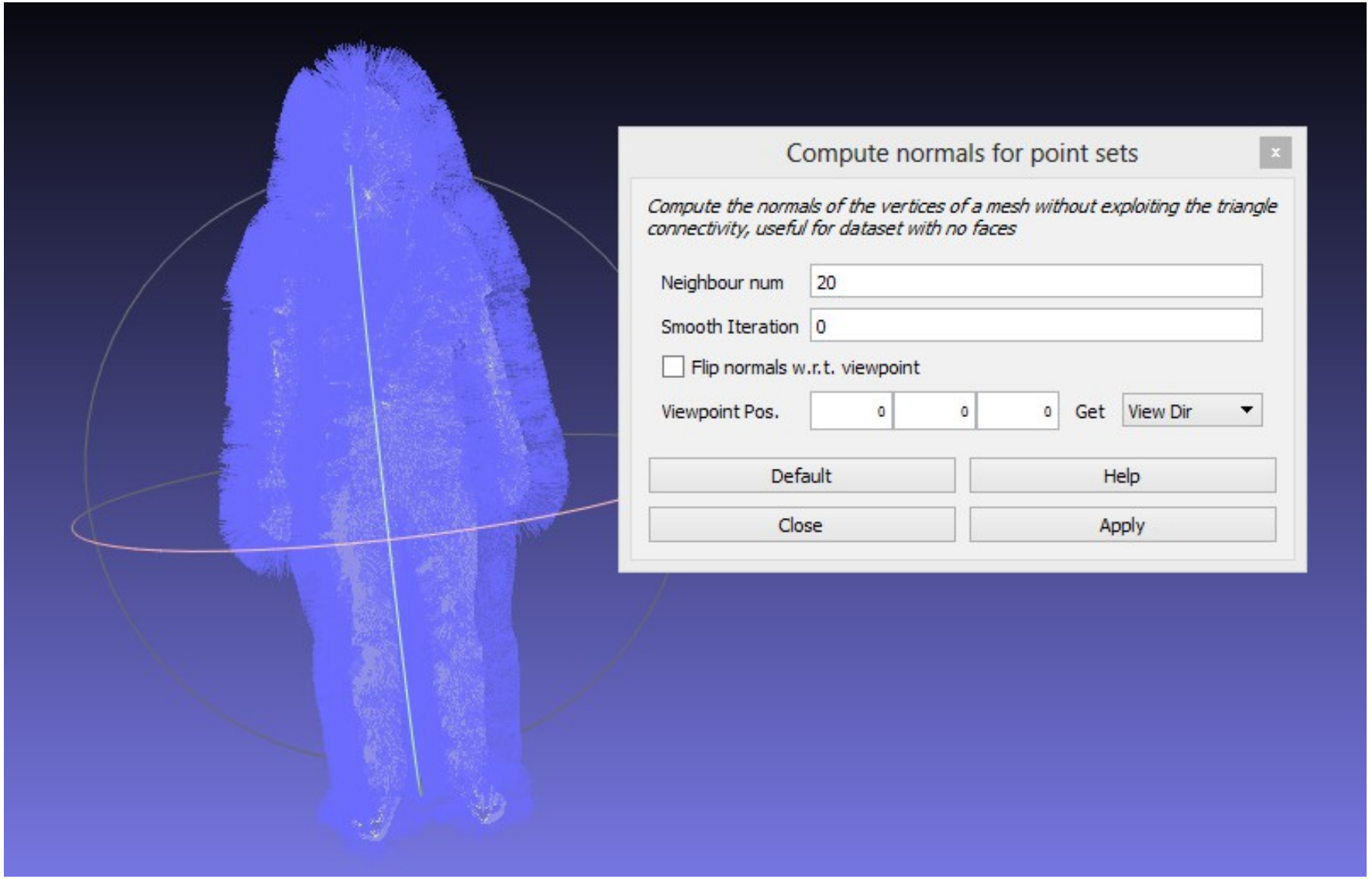


Render Show → Normals



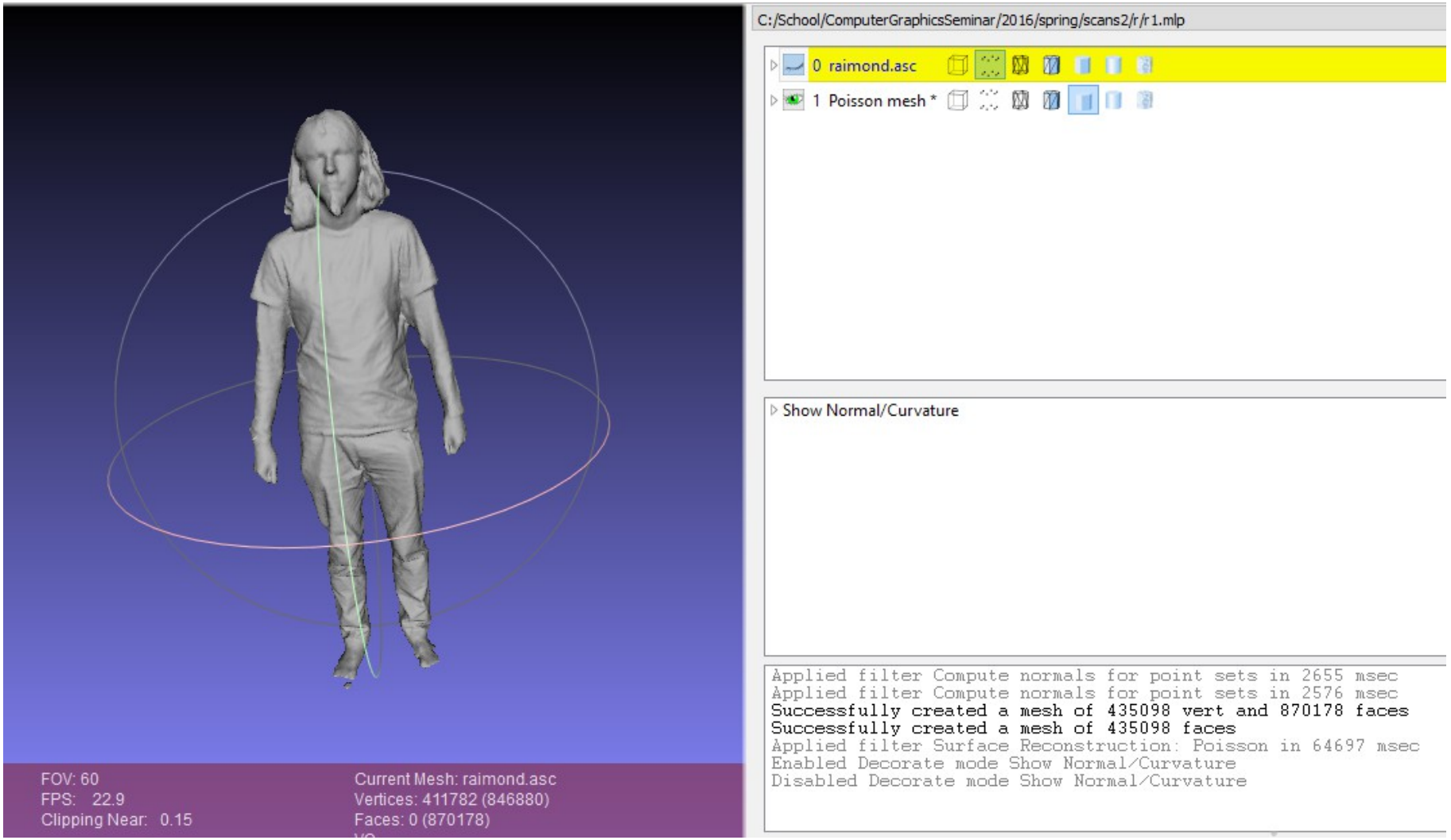
Compute Normals For Point Set

Filters → Point Set → Compute Normals For Point Set



Construct the Surface

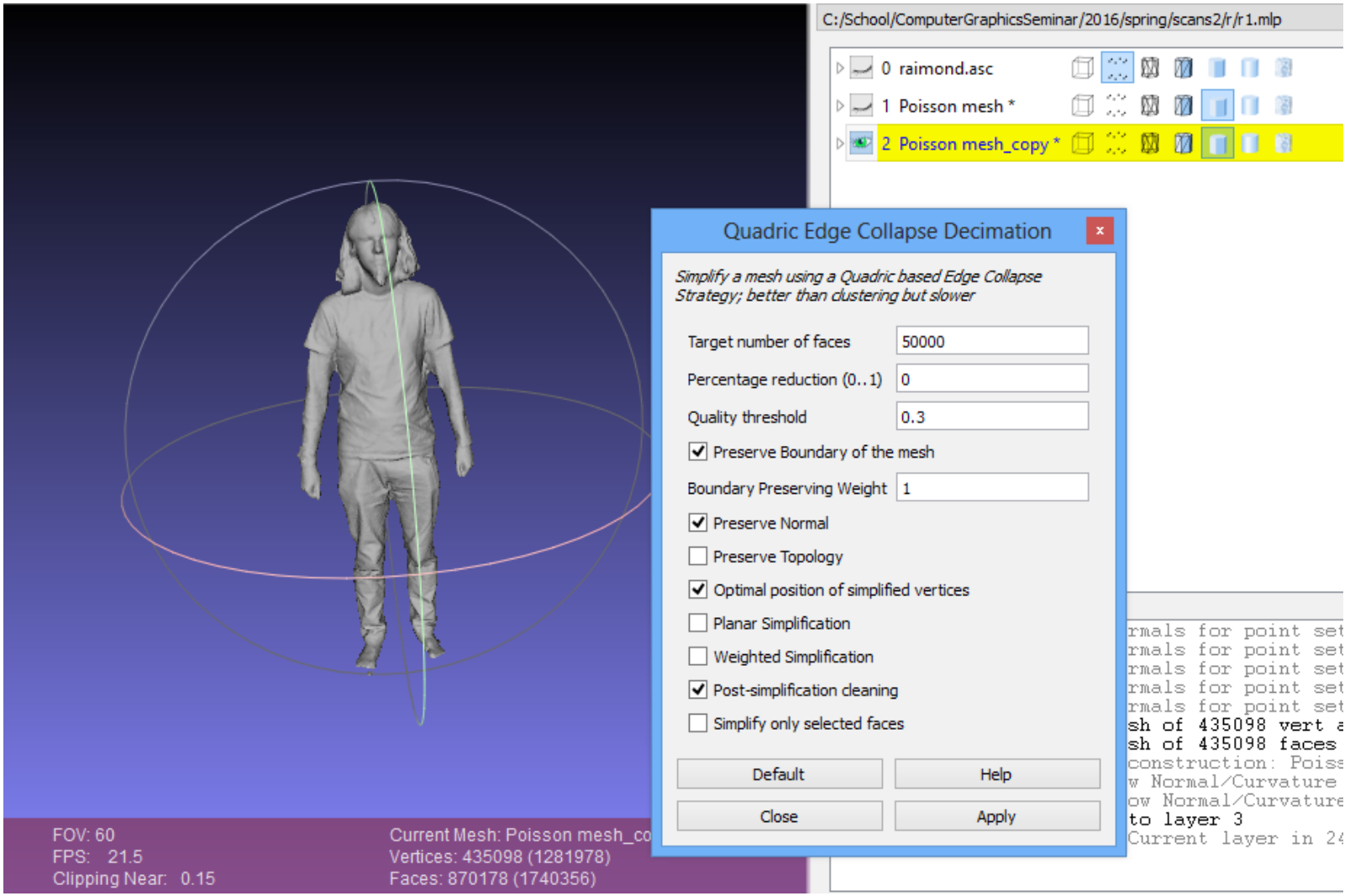
Filters → Point Set → Surface Reconstruction: Poisson



Lessen the Vertex Count

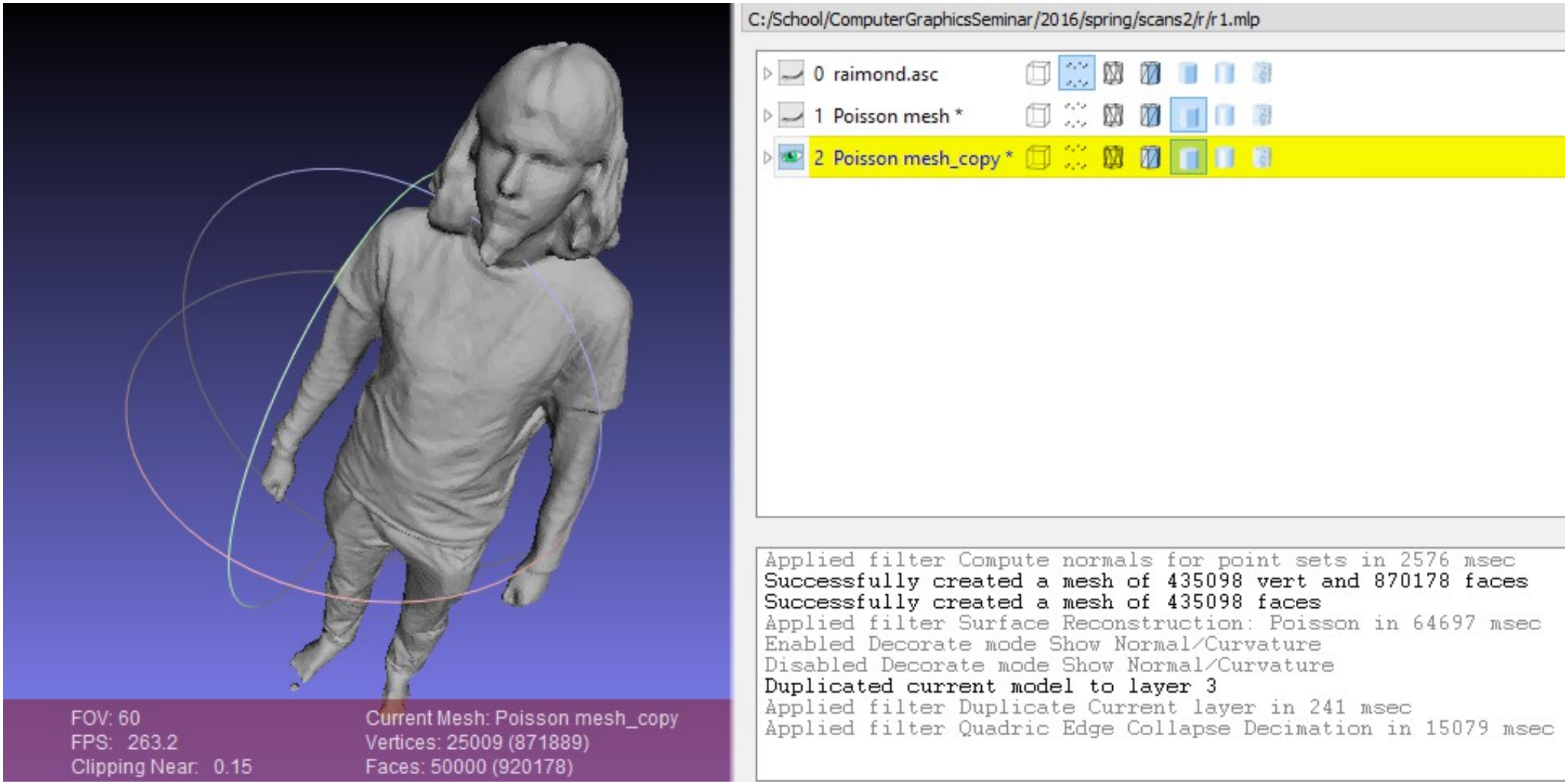
Filters → Remeshing, Simplification, Reconstruction
→ Quadric Edge Collapse Decimation

You might want to duplicate the mesh before.

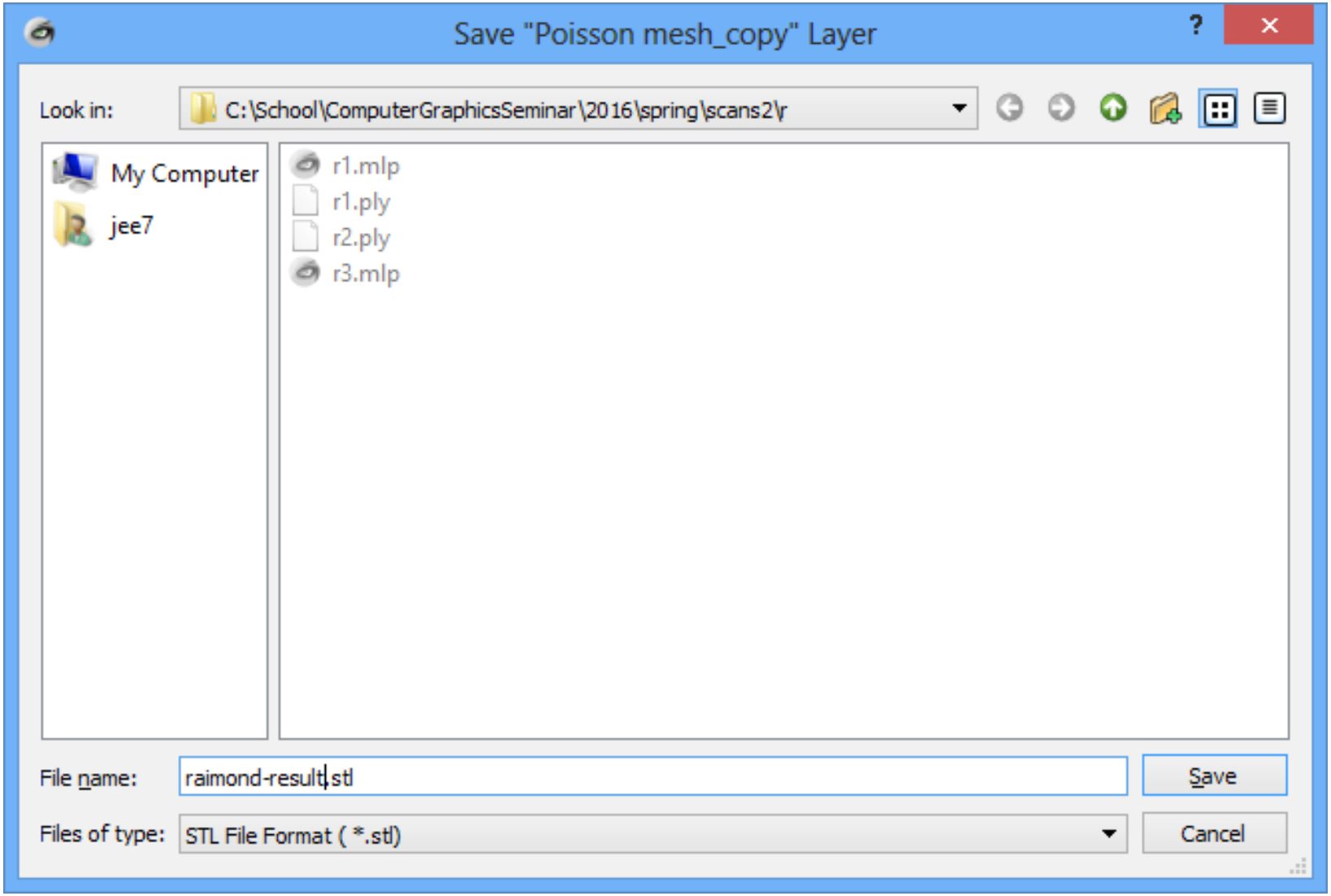


It Does Get a Bit Blurry

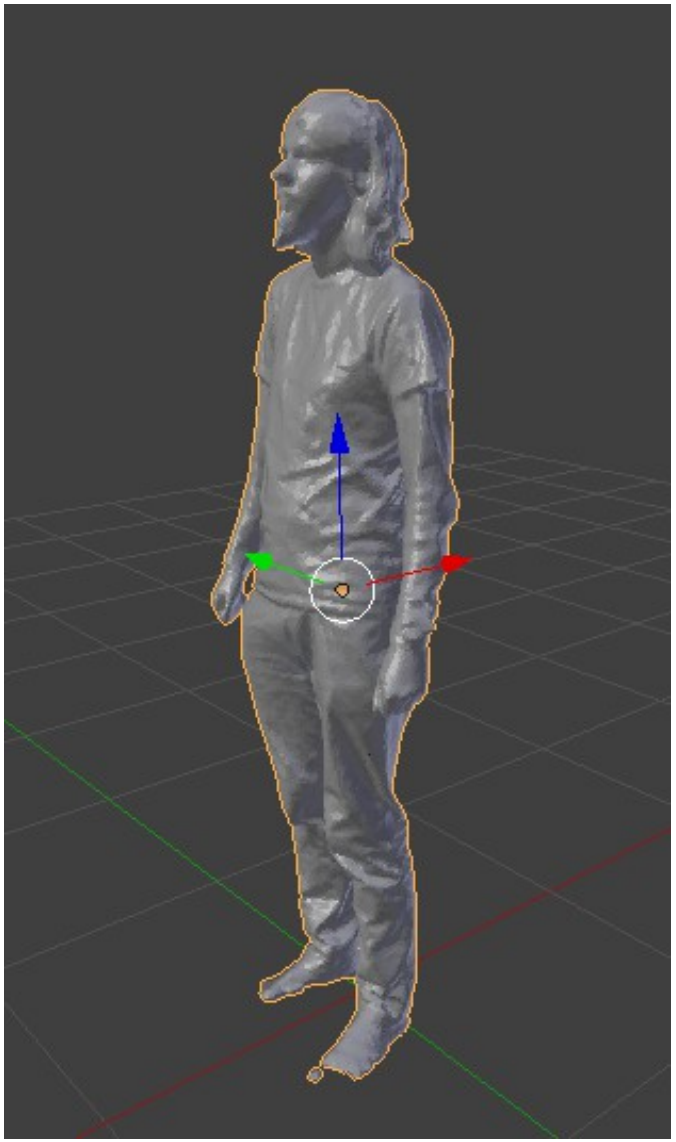
If possible you could try not to collapse the face. Not done here.



Export STL


Save "Poisson mesh_copy" Layer
Look in:
C:\School\ComputerGraphicsSeminar\2016\spring\scans2\r
My Computer
jee7
r1.mlp
r1.ply
r2.ply
r3.mlp
File name:
raimond-result.stl
Save
Files of type:
STL File Format (*.stl)
Cancel

Import to Blender



Done

- Tell me if you want to 3D print it out. :)
- Feel free to try out different tools in MeshLab.
- See also: http://ikuz.eu/2014/04/03/proof-of-concept-from-3d-scanner-to-animated-model/