URA work results

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6 attachments (3 MB)

Literature Review Notes. for human airway.pdf; Kitaoka et al. - 1999 - A three-dimensional model of the human airway tree.pdf; Fung et al. - 2011 - Development of a model of the coronary arterial tr.pdf; algorithm develop.py; Mesh_1.stl; algorithm develop.py.pdf;

Hi professor,

First of all, thanks for giving me a chance to work on your lab for two consecutive terms. I have improved a lot since the first term starts, in terms of coding, writing and communication. I am very appreciated for your guide and kindness.

Attached ones through this email are the updates for my previous codes. There are .py file one and a pdf version of code, along with two literature papers used in the code development and a simple geometry needed to be used in Salome software. I included some detailed on each part of codes. Please see the pdf version for more details.

As for the results, the algorithm is able to produce branches with a different length following normal distribution. However, the stopping criteria for algorithm should still be improving. Based on my reading on literature paper, I suggest the algorithm to include some volume definition for each branch including the parent branch. By adding the volume comparison, the stopper criteria can be further improved.

If you have any questions in future regarding this, please let me know. I will reply as soon as possible. I wish you all the best!

Sincerely,
Da