

**School of Mechanical and Chemical Engineering** 



### **AAA Tutorials**

#### 8. Generate Abaqus input files

*Grand Roman Joldes* Senior Research Fellow

Intelligent Systems for Medicine Lab. (ISML) Vascular Engineering Crawley, WA, 6009, AUSTRALIA

Phone: + (61) 8 6488 3125 Email: grand.joldes@uwa.edu.au





# Software installation

Copy the folder containing AAA\_GenerateAbaqusFile.exe to a location on your drive. Copy the folder Abaqus to the AAA case folder.

## **Software configuration**

In the folder Abaqus edit AAA\_CreateParts.bat and set the path to AAA\_GenerateAbaqusFile.exe.





# **Expected inputs**

The Wall and ILT volumes and surfaces: ..\Meshing\_const\_thickness\Meshing\Wall.vtk ..\Meshing\_const\_thickness\Meshing\ILT.vtk ..\Meshing\_const\_thickness\WallSurface.vtp and ..\Meshing\_const\_thickness\ILTSurface.vtp Same in the ..\Meshing\_var\_thickness folder.

#### **Running the software**

Go to folder Abaqus and run AAA\_CreateParts.bat.





### **Expected outputs**

In Abaqus\ConstThickParts (and Abaqus\VarThickParts):

• .inp files containing the ILT and Wall Abaqus parts.

The ILT.inp and Wall.inp are then copied in the subfolders containing Abaqus input files which use them under different configurations:

- Blood pressure applied on the interior ILT surface;
- Blood pressure applied on the interior wall surface;
- Blood pressure applied on the interior wall surface and no ILT included;



**School of Mechanical and Chemical Engineering** 



# Thank You !

grand.joldes@uwa.edu.au

G.R. Joldes