

Auxetics Software from EPFL

- Grasshopper plugin that is used with [Rhino7](#)
- This plugin allows the user to input 3D designs and generate an auxetic cut pattern that consists of either the aux_cell or bass_cell discussed in the following [blog post](#)
 - The user is also able to preview the deployment of these 3D structures within the Rhino 7 software.
- The software discussed is mentioned in the following paper [Bistable Auxetic Surface Structures](#).
 - I (Daniel) have been in contact with the authors of this paper with regards to issues I ran into while trying to use the plugin. All of the issues and fixes are noted down in the "GettingStarted" markdown file that is attached.
 - From the main author I was told that they have an updated version of the plugin that will become available mid to late august after SIGGRAPH 2022.
- Authors email: tianchen@uh.edu

Pyauxetics

- This is a python add-on for the Abaqus software.
- Github Link: <https://github.com/mkhoshbin1/pyauxetic>
- It is computationally heavy as FEA is performed on the designed auxetic structures, and would require the use of a powerful desktop that can run Abaqus.
- I (Daniel) sent an email to the corresponding author since the code shown in the paper is different from the one that is available in github.
- [Youtube tutorial](#) that described how to use the old/outdated version of the software.
 - It is possible to email the authors and receive the same version of the software as shown in the youtube tutorial.
- Authors email: j.kad@sru.ac.ir

Spatial Auxetics

- This software is in MATLAB
- Github link <https://github.com/ChiangYuChou/SpatialAuxetic>
- This code takes in a given 3D object and restructures the 3D object to a 2D surface.
- I tried using another 3D object, like the half dome and the code does not work. Returns an error that the object is not on the ground.
- The software discussed is mentioned in the paper: [Programming Flat-to-Synclastic Reconfiguration](#)
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