

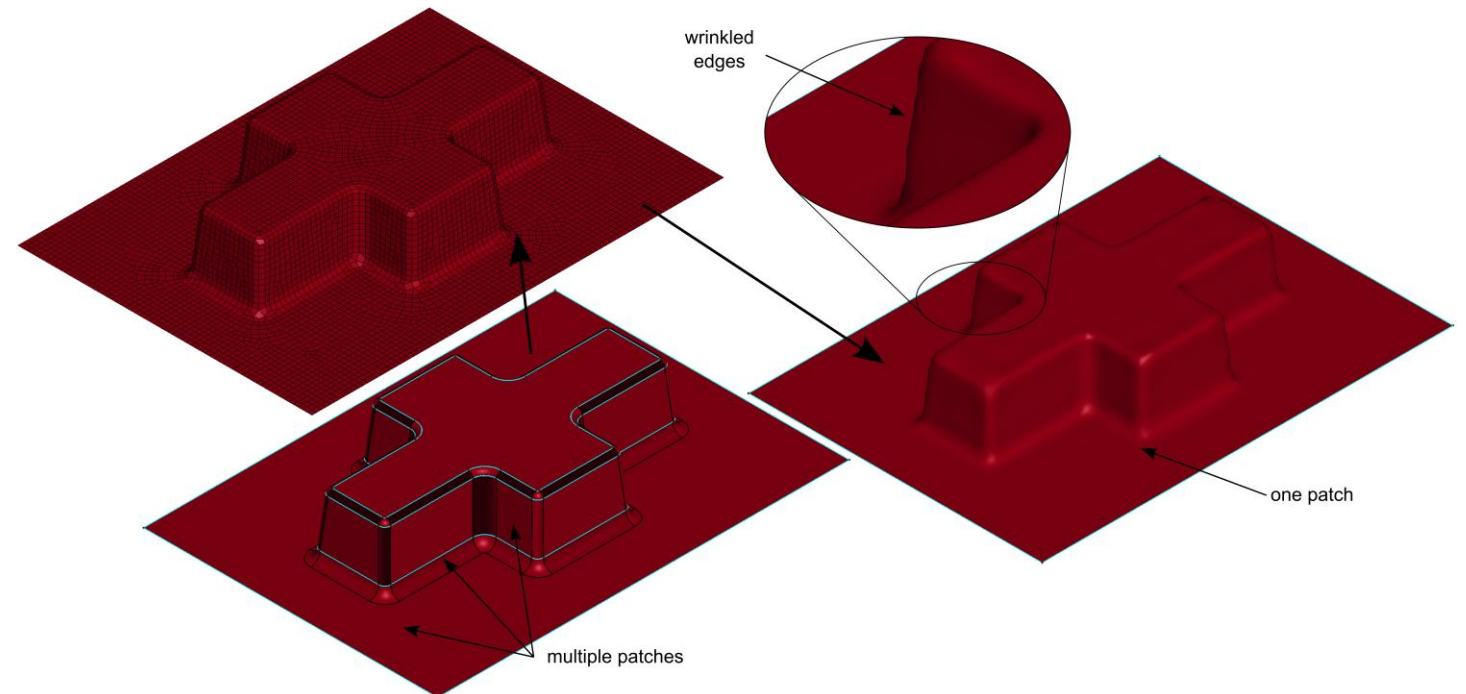
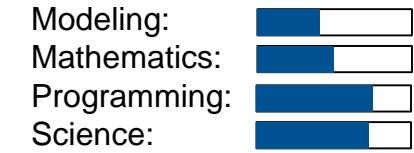
Ontology-aware Reverse Engineering of FEM Meshes

Task

Develop a workflow that imports Finite Element meshes and transfers the geometry to a patch-based CAD model:

- Get to grips with Python and helper modules [1]
- Execute a Data Analysis to make design features automatically detectable
- Derive component substructures and generate ruled surfaces
- Test and adapt existing algorithms for the generation of NURBS surfaces

Project Characteristics



[1] Kitware Inc., "python-examples," 2022. <https://kitware.github.io/vtk-examples/site/Python/>