

Implementation of the Finite Cell Method in ANSYS®

Setting:

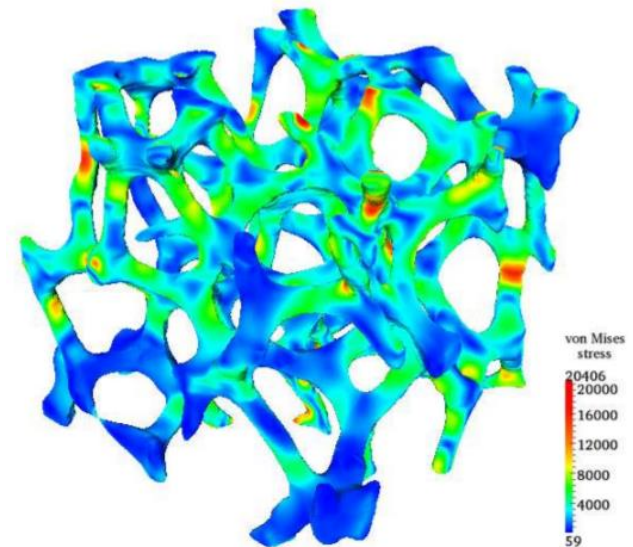
- Closely coupling Design and Analysis is highly desirable to speed up development
- Embedded domain methods greatly simplify meshing and might be the solution
- These approaches have yet to be accepted by professional FEA software companies

Task:

- Implement an ANSYS® User-Defined-Element with linear and quadratic bases
- Incorporate the element into the ANSYS workflow

Project Characteristics

Modeling: ★☆☆☆☆
Mathematics: ★★★★★
Programming: ★★★★★



D. Schillinger and M. Ruess, "The Finite Cell Method: A Review in the Context of Higher-Order Structural Analysis of CAD and Image-Based Geometric Models," Arch Computat Methods Eng, pp. 1–65, May 2014.

