ZFEM for Composite Materials

A. Goals:

- Calculate accurate derivatives for Laminate Composite Materials
- Verify results through the use of finite difference or published results

B. Brief Description:

- Implement Complex Taylor Series Expansion into Abaqus to create a user element that has the capabilities of calculating stress, strain, displacement, and energy derivatives for composite materials

C. Heights of Achievements this semester:

- Successfully created complex variable user element for linear elastic isotropic material
- Created layered composite examples in Abaqus (finite element software)

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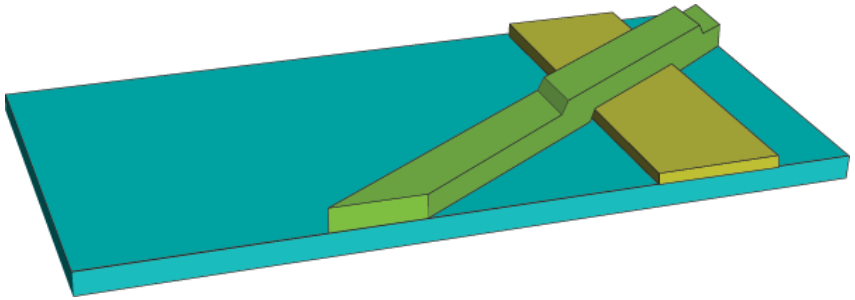
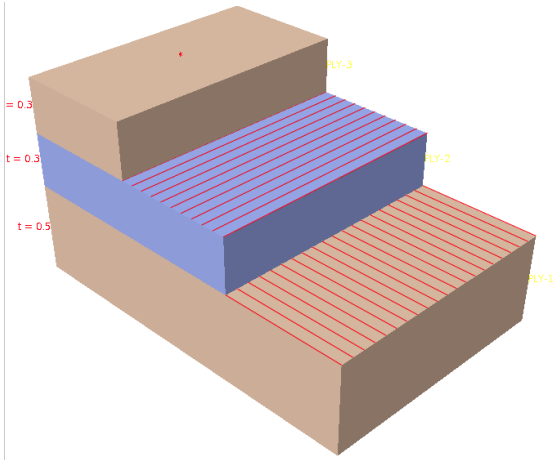
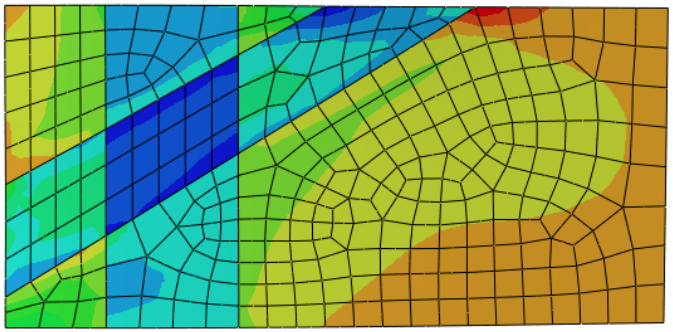
ZFEM for Composite Materials:

- Representative Figures/Diagrams/Videos that highlight your research methodology and results







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