

Elizabeth Monte

Prof. Abukhdeir

An Open-Source Computational Multiphysics Package

Presenting OpenCMP, an open-source CMP package. OpenCMP is built on NGSolve, a popular FEM library and offers both a simple user interface to standard models and the ability for experienced users to easily add new models. It implements the diffuse interface method, which is significantly faster than conformal meshing, though less accurate, and is intended for design screening. OpenCMP will be validated on common benchmark problems and used for novel applications of the diffuse interface method