

A Numerical method for solving the elliptic and elasticity interface problems

Songming Hou

Louisiana Tech University

Solving elliptic and elasticity equations with interface jump conditions are challenging problems for most existing methods, especially with non-smooth interfaces. Nonetheless, they have wide applications in engineering and science. I will present a non-traditional finite element method for solving matrix coefficient elliptic and elasticity equations with sharp-edged interfaces in two and three dimensions.