ACMS Applied Math Seminar

Bryan Quaife

Thursday, April 26, 2018
154 Hurley Hall
3:30 – 4:30 PM

Resolving the Small Scales in Porous Media Flow

Porous media flow appears in many applications in science, engineering, and medicine. Numerical solutions are often formed by solving the Darcy equations, but this assumes that the pores are distributed homogeneously. Instead, we will use a boundary integral equation formulation to resolve individual grains in the geometry. This method will be used to perform high-fidelity simulations of flow and erosion in porous media.

This is joint work with Pietro de Anna, George Biros, Ruben Juanes, and Nick Moore.