

Wednesday, October 17th, 16:00
BCAM Seminar room

Rafael Granero

Universidad de Cantabria (Spain)

SOME ASYMPTOTIC MODELS FOR FREE BOUNDARY INCOMPRESSIBLE FLOW

In this talk we will present some models for free boundary incompressible flow. In particular, we will consider the motion of an incompressible irrotational fluid moving according to the Euler equation and the motion of an incompressible fluid in a porous medium moving following either Darcy's Law or Forchheimer's Law. We will show some numerical simulations and also present some mathematical results.

These results are in collaboration with Arthur Cheng (NCU), Stefano Scrobogna (BCAM), Steve Shkoller (UC Davis) and Jon Wilkening (UC Berkeley).