

Seminar Title: Coupled or Hybrid Particle-Element Simulations for Wet Material Systems

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Abstract:

Wet materials such as ceramic slurry, oil sands, metallic powder with binders and lubricants, high-concentration particle suspensions, bullet-proof fabrics impregnated with rheological fluids, and so on are used in a variety of industrial applications. Understanding of the mechanics and dynamics of such complex material mixtures is essential for the optimization in material processing for cost-effective and reliable production. In this seminar, the speaker will introduce and discuss the numerical techniques based on coupled or hybrid particle-element methods suitable for the simulation of wet material systems.