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Abstract for an Invited Paper for the MAR06 Meeting of the American Physical Society

Immersed boundaries and particles

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This talk will present ongoing works in our group dealing with particle simulation of complex flows. We will show some non conventional particle methods to simulate incompressible elasticity and fluid-structure interactions. We will also show how particle methods in these fields, as well as for more conventional advection dominated physics, can lead to new ideas for Eulerian schemes.