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Abstract for an Invited Paper
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Plenary – Computational Models and Conceptual Understanding in Introductory Physics

RUTH CHABAY, North Carolina State University

Constructing and exploring computational models can offer significant support for the development of conceptual understanding of fundamental principles in physics. However, most students who take introductory physics courses have had no prior exposure to programming. By teaching a minimal set of computational concepts in the context of physics activities, we can engage students in constructing and refining real-time 3D computational models of interesting physical systems. I will show examples from mechanics and thermodynamics.