Accurate Scientific Visualization in Research and Physics Teaching TIM WENDLER, Brigham Young University — Accurate visualization is key in the expression and comprehension of physical principles. Many 3D animation software packages come with built-in numerical methods for a variety of fundamental classical systems. Scripting languages give access to low-level computational functionality, thereby revealing a virtual physics laboratory for teaching and research. Specific examples will be presented: Galilean relativistic hair, energy conservation in complex systems, scattering from a central force, and energy transfer in bi-molecular reactions.

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