Interactive Physics Simulations

Jonathan Gholson
Illinois Wesleyan University

Narendra Jaggi, Faculty Advisor
Illinois Wesleyan University

Follow this and additional works at: http://digitalcommons.iwu.edu/jwprc

Part of the Physics Commons

Gholson, Jonathan and Jaggi, Faculty Advisor, Narendra, "Interactive Physics Simulations" (2015). John Wesley Powell Student Research Conference. 2.
http://digitalcommons.iwu.edu/jwprc/2015/oralpres12/2

This Event is brought to you for free and open access by The Ames Library, the Andrew W. Mellon Center for Curricular and Faculty Development, the Office of the Provost and the Office of the President. It has been accepted for inclusion in Digital Commons @ IWU by the faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.

©Copyright is owned by the author of this document.
INTERACTIVE PHYSICS SIMULATIONS

Jonathan Gholson and Narendra Jaggi*
Physics Department, Illinois Wesleyan University

The primary focus of this project is to create interactive, real-time physics simulations for educational use with the ultimate goal of improving students’ physical intuition. Ideally a student would be able to work with a system in a physical lab environment in order to build their intuition, but this may not always be feasible due to the size and scope of the system or the student’s access to required materials. These simulations seek to provide practical alternatives for the aforementioned limitations. In any given simulation, both accuracy and realism are strived for, yet the general scope for each is to recreate those elements that are fundamental to an individual’s understanding of the system. The topics covered by this project are those that would be found in an undergraduate physics curriculum with special focus on systems for which analytical solutions are difficult or impossible.