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Title: An eTextBook in Computational Physics with Multiple Executeable Elements

Name: Landau, Rubin H

Affiliation: Oregon State University

A complete eTextBook with multiple executeable elements has been created, and an early draft has been placed on line (http://physics.oregonstate.edu/~rubin/Books/eBookWorking) . While future technologies promise vastly improved executeable papers, the created eTextBook highlights some of the features now possible with existing technologies. The core of the book is a pdf file with various links and encapsulations produced from a LATEXsource file using the hyperref macro package. The project combines 15 years of development in Computational PhysicsWeb enhancements and 20 years of Computational Science and Computational Physics textbook developments into a prototype eTextBook that combines text, laboratories and lectures. The eBook is a Python version of a previously-published Computational Physics paper text, and promises to be the publisher?s first eBook. The motivation for the electronic version of this text is the realization that di_x000B_erent learners learn in di_x000B_er ways, and that the formation of the mental models essential for learning is improved by having using senses to ?view? a subject (multimodal viewing). Furthermore, it has been shown that the most e_x000B_ective way to learn how to compute is while sitting at a computer and interacting the computer and the text, in this case one that is executeable in multiple ways and readable on the computer. The eTextBook contains over 60 lecture modules created for most every topic in the text with Camatasia Studio and occupying over 14 GB (big file sizes). These modules contain a video picture-in-picture of a professor presenting a lecture or demonstration in his office, along with active slides coordinated with the lecture, a dynamic table of contents, and links to codes and applets. The extensive set of studio-produced lectures makes the text particularly useful for a blended or online course where the instructor can use some or all of the text?s lectures or slides.