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Relativity in the Physics Curriculum: Where, When, and What?

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Einstein's Special Theory of Relativity (SR) shook the philosophical foundations of physics, and the physical foundations of philosophy, at the turn of the 20th century. Yet today, a hundred years later, its position within the physics curriculum—both undergraduate and graduate—is uncertain at best, despite being a focus of student interest. Students generally receive a brief, often confusing initial exposure to SR in their introductory physics sequence. After this initiation, SR may be encountered again by the student either as a special topic welded (unnaturally) onto classical mechanics or electromagnetism, or potentially as a stand-alone elective, either solely focused on SR, or as introductory material in a treatment of General Relativity (GR). The uncertainty concerning how SR should be incorporated into the curriculum continues with GR. Does it have a place in (at least) the graduate curriculum for more than specialists? Different approaches to placement and treatment of relativity in the undergraduate and graduate curricula will be examined. Is relativity for all a desirable and reasonable goal?