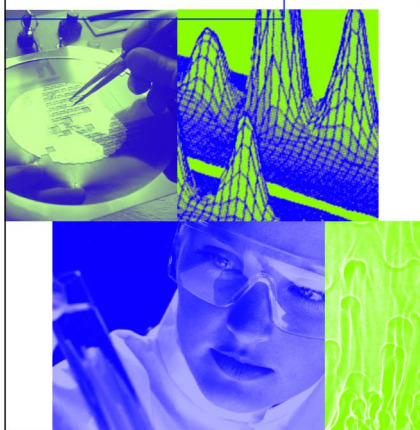


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LETTERS

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of college courses, they will continue to be important for documenting students' ability to handle challenging college-level material, and will therefore continue to favorably affect admissions. Although that positive impact can continue to be used for motivation, we think that the best way to motivate students is to increase their success in learning rather than to try to convince them that the distasteful medicine of AP physics will be beneficial.

Marcelo Alonso detected a typographical error, for which we apologize. The College Board publication refers to "circular motion," not "circular momentum."

We strongly disagree with many of Robert Mullins's assertions. The NRC panel did not criticize the AP Physics B course as being "too broad to be stimulating," but rather too broad to allow learning in depth. However, if the B course is taught in two years, as some schools are doing, it is quite a reasonable curriculum. We agree that the problem of breadth versus depth also exists in college courses, and the NRC report points out that colleges also need to be more realistic. Oddly enough, the complete AP Physics-B program is more compressed than many college courses, in which instructors often choose to omit topics.

The NRC panel certainly did not recommend "isolating physics from the rest of the nonscience high-school curriculum." In fact, the report recommends increasing attention to interdisciplinary opportunities.

Although mechanics provides abundant intellectual challenge, the Physics Panel agrees with Mullins that the study of other topics should also be available to advanced physics students. Ordinarily, the common mechanics unit we propose would be covered in one semester; that would leave the second semester free for topics like electricity and magnetism or modern physics. Although students are excited by exposure to the forefront of physics, we should not underestimate the satisfaction they can derive from mastering mechanics: It is close to their everyday experience, and even mechanics contains challenging surprises—chaos, for example. Too many students are lost at an early stage. Because few students place out of a full year of physics at present, an agreed standard for

mechanics could at least allow a larger number of students to omit the first semester of college physics.

The full NRC document and the Physics Panel's report are available online at <http://www.nap.edu/catalog/10129.html>.

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Fermi Tales

A quote from Hans Bethe's article (PHYSICS TODAY, June 2002, page 28) about Enrico Fermi is especially indicative of Fermi's personality and sets a desirable standard for anyone: "Fermi was always willing to help with specific problems; anyone could come to him." As a graduate student working at Los Alamos during the summer of 1953, I had a problem that required both a theoretical and an experimental approach, and I needed help. A resident physicist remarked, "Take it to Dr. Fermi," whose office was just down the hall from me in the old Gamma Building. With hesitation and apprehension, I did so. I walked out later with a new friend and temporary mentor, and with suggestions that led to a technical solution.

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The table on page 41 of the June 2002 issue of PHYSICS TODAY lists the courses that Enrico Fermi taught at the University of Chicago. However, it omits his last course, Quantum Mechanics (Physics 341–342), which he taught in the winter and spring of 1954. I still have my set of Fermi's mimeographed handwritten notes that Valentine Telegdi mentions. Those notes were later published as *Notes on Quantum Mechanics* by the University of Chicago Press in 1961, with a second edition in 1995.

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Correction

August 2002, page 59—In the first item, "Spectral Confocal Microscope," TCS SP2 AOPS should be TCS SP2 AOBS. ■