member states may say we were ready to give that money to speed up the project, but if it is not sped up why should we give it?" says Jacob.

For the time being, potential overseas contributors are watching with interest. "Right now I have no clue as to what this all means ... It is going to take a while to play out," says James Decker, deputy energy research director at the U.S. Department of Energy, adding that he has yet to hear anything officially from the German government. He did, however, categorically rule out the possibility that the United States would up its contribution to make up for the German shortfall. According to a delegate to CERN's finance committee, U.S. involvement is "here to spin up the project, make it better, but not to compensate for member states."

ESRF officials are particularly angered that the planned cuts would come just as the facility is about to reap the rewards of years of planning and construction. Kunz points out that ESRF has far outstripped its design specification—the brilliance of its x-ray beam is 100 times its design value—and it has stayed on schedule and within budget. "We've done nothing wrong," he says, "then just at the last minute before we are fully operational we get a heavy budget cut." Kunz says there will be "heavy discussions" at the next meeting of the ESRF council, and a special meeting may even be convened. If the council decides to accept Germany's cut, he says, then other countries will be within their legal rights to cut by the same percentage. "We are very concerned," says physicist Catherine Césarsky of France's Atomic Energy Commission, who is a member of both the ESRF and the ILL councils.

According to Hans Riotte, a spokesperson at the German research ministry, the German parliament will begin debating the proposed budget on 12 September, and a final decision will be reached by the end of November. Over the next few weeks the fate of much of Europe's international science will lie in the hands of Germany's lawmakers.

–Daniel Clery and Andrew Watson

With additional reporting by Alexander Hellemans and Andrew Lawler.

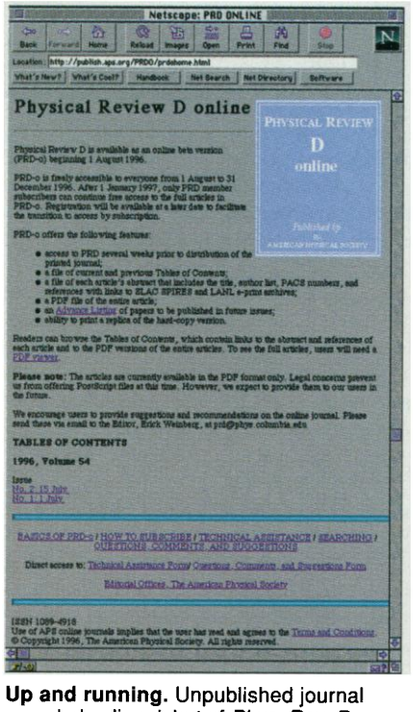
ELECTRONIC PUBLISHING

E-journal: Delayed But Still a Force

It could become the most influential journal never to publish an issue. The first exclusively electronic physics journal had aimed to take advantage of the convenience and cost savings of purely electronic submissions, refereeing, and publishing (*Science*, 9 February, p. 767). Now, says the journal's chief architect, Andrew Cohen of Boston University, after a series of what he characterizes as minor technical and administrative delays, "we may never go online." Cohen says he is still optimistic. But in the meantime, the prospect of this radical new journal has prompted changes among traditional physics publications, accelerating their own efforts to go online and rethink their futures.

Conceived a year ago, the journal would be an "overlay" to the vast electronic archives at Los Alamos National Laboratory, where physicists in many different fields post preprints of their papers. Although the archives are the "primary source for information on developments in my field," says Michael Peskin, a particle physicist at the Stanford Linear Accelerator Center, the preprints are generally unrefereed. The idea behind the new electronic journal, Cohen says, is to submit a subset of those papers to peer review, and after any necessary revisions, post them with a tag indicating that they had been refereed.

The journal is supposed to squeeze costs, says another of its organizers, Martin Einhorn of the University of Michigan, by handling all submissions, referee reports, and revisions electronically. In addition, submissions could come in any format and—providing they were comprehensible—would receive no editing for things like spelling or grammar, eliminating "staffs of people to read articles for those qualities, independent of scientific content," says Einhorn. "It's a useful experiment," says Columbia University's Erick Weinberg, who since 1 July has been editor of *Physical Review D*, a journal published by the American Physical Society (APS) that covers particle physics.



Up and running. Unpublished journal speeded online debut of *Phys. Rev. D.*

But it's an experiment "we had hoped to get going 6 months ago," says Einhorn. For one thing, Cohen says, "We're searching for the solution to this problem that I'm a physicist first," not a full-time editor or publisher. The software he has written to implement the journal will need to be debugged and improved, for example, and Cohen would like "an individual who will be able to take over some of the technical work." He also attributes much of the delay to unfinished negotiations with APS, which he hopes will lend a statement of support for the project. Ben Bederson, editor-in-chief at APS, told *Science* that any agreement with the group could also include "some modest start-up funds" to help with the practical issues.

Einhorn and others add that organizers underestimated what a full-fledged journal would require—everything from legal advice to secretarial help. "My own feeling is that initially they were a bit naive," says Columbia's Frank Sciulli, chair of the division of particles and fields at APS, who notes that he supports the concept of an electronic journal.

Cohen still hopes for a solution to these problems, and several other organizers are optimistic as well. But whether or not the group succeeds, says Jonathan Bagger of Johns Hopkins University, "they've served a tremendous purpose in raising the awareness of the [physics] community in electronic publishing." A case in point, says Weinberg, is *Phys. Rev. D*, whose own online version went on the World Wide Web just last week. "Certainly I don't think *Phys. Rev. D* would be online on August 1 if it weren't for [Cohen's] journal," says Weinberg. "It's competition."

Unlike Cohen's brainchild, says Weinberg, *Phys. Rev. D* will publish both paper and online versions, as will the other APS journals that have started publishing online over the past year. Maria Lebrón, associate publisher at APS, says, however, that exclusively on-line publishing is "a logical extension in the future." Cohen himself is critical of all of these efforts because they aren't linked closely enough to the Los Alamos archive, where so many physicists now get their information. But these projects will owe more than a little to his journal, whether it is ever published or not.

–James Glanz