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Climate Change and
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Real analysis in polar coordinates (see page 613)

institutionalized once the seed money disappears [Bacchetti and Ehrlich, 2006]. We believe that changes prompted by the CID will stick because these were choices made by the department itself, rather than as a response to an external agent" (page 165). As a dean I view this as the "if they really want to do it, they can do it on their own and thus they don't need the college's scarce resources" approach.

On the other hand, there is, for example, the approach of the NSF Division of Mathematical Sciences through its workforce program. So where does the truth lie?

Of course the truth is somewhere in between. I agree that reform needs to be a grassroots movement from faculty, staff, and students as a fundamental cultural shift is necessary. But oftentimes these shifts require more than just will. So how do you convince your administration or the NSF? I think the answer is similar for both. Further, most deans think alike on this point and it is no secret—but it is amazing to me at least—how few department chairs provide us the information we want/need to invest scarce resources in a department. We are looking for evidence that you have done your homework, that you have reflected on the issues, that you have well-thought-out plans, and that you have ways to evaluate the success of these plans if you are able to implement them. We are also looking for evidence that you have done all that you can do on your own. Everyone could use more resources, but what have you done to conserve the resources that you have? How high a priority is this to your department, as evidenced by a serious investment of your own time and resources? These issues can require serious and often delicate discussions, but progress is made not just by adding on but sometimes also by cutting back.

I'll step off my soapbox now and return to the book at hand. I highly recommend it to all faculty members interested in improving their graduate programs. It is a relatively quick read. Indeed, portions most relevant to other disciplines can often be skipped, although the cross-cultural enlightenment these sections can provide can be both amusing and worthwhile. The authors and the Carnegie Foundation for the Advancement of Teaching are to be commended.

References

- [1] HYMAN BASS, "The Carnegie Initiative on the Doctorate: The case of mathematics", *Notices Amer. Math. Soc.* **50**, no. 7 (2003), 767–776.
- [2] TONY F. CHAN, "The mathematics doctorate: A time for change?", *Notices Amer. Math. Soc.* **50**, no. 8 (2003), 897–904.
- [3] ALLYN JACKSON, "The Carnegie Initiative on the Doctorate", *Notices Amer. Math. Soc.* **50**, no. 5 (2003), 566–568.

About the Cover

Real analysis in polar coordinates

The cover image shows Ken Golden (author of the article on the mathematics of sea ice in this issue) measuring the fluid permeability of first year Antarctic sea ice. He writes about it:

"The fluid permeability of porous sea ice controls brine drainage, melt pond evolution, surface flooding, and snow-ice formation. Melt pond evolution, for example, in turn controls sea ice reflectance, a key parameter in understanding the dramatic decline of the summer Arctic ice pack. Snow-ice formation, a dominant process in the Antarctic, may well become more prevalent in the Arctic as the ice pack thins. The permeability also controls microbial colonization and nutrient fluxes, which are important in gauging the response of polar ecosystems to climate change. The permeability measurements I made on this expedition were the first such measurements done in the Antarctic ice pack. The photograph was taken by Jan Lieser."

—Bill Casselman, Graphics Editor
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