

There is no specific system for "young researchers" in the context of United Kingdom project grant funding. However, the nature of the Complex Stochastic Systems Initiative described above is such that one anticipates comparatively little of the funding going to the more senior members of the community and most going to an up-and-coming younger generation, who combine traditional mathematical and

statistical skills with equal expertise in computation and graphics.

I happen to be the current Chairman of the Mathematics Committee and so had better conclude by issuing the disclaimer that I am contributing this discussion as a private individual, rather than in my "official" capacity.

Comment

Giorgio Dall'Aglio

My first reaction on reading the paper by B. E. Trumbo has been to appreciate the mechanism for assigning grants by NSF. Possibly, the author's attachment to that work has embellished his description of it; but even allowing for this, there remains the feeling of a well-organized apparatus, served by efficient and serious people, in which the allocation of funds is made on the basis of a thorough examination of the projects presented.

This is, I think, the first and most important piece of information for those who plan to apply. The knowledge that the decision will derive from a serious and accurate examination of the project automatically implies that the first requisite of the project must be a good idea, clearly described.

Many of the tips given in the paper are corollaries of this "main proposition," and could be inferred by common sense. Of course they are not useless: even for people already trained in deduction in mathematics, deduction in real life is not easy.

In this context, I do not fully understand the practice of excluding as referees people who have worked with the applicant. They should be acquainted with the applicant's competence. The fear of "conflict of interest" should be outweighed by reliance on the substantial honesty of the reviewer (the applicant's honesty is taken for granted in the paper, not to mention that of the final judge). Moreover the final judge must appraise the judgments of the reviewers, and this includes, as hinted in the paper, an evaluation of the reviewer's personality.

The remaining information in the paper relates to administrative aspects. Among these, I find that the most relevant is the usual size of the grants that are

awarded. This allows the potential applicant to evaluate the impact of the grant (if given) on the organization of his work and of his life.

The clear and thorough information given in the paper is not only useful for applicants, but also in general to understand the purpose, scope and way of operating this NSF program. (I wonder whether the real aim of paper is to instruct young applicants or rather to inform the scientific community and even to suggest how projects should be evaluated more generally).

From the paper it appears clear that this NSF program is intended to produce scientific results (and not to train students in research), operating on single, limited projects, and that this aim is pursued by allowing extra earnings to people who already have an academic position. The 1988 budget of 7 million dollars for probability and statistics is per se large, but it is difficult to appraise its real value with no reference to the sum spent for people who do permanent research work or (more importantly) to the part of the university salary, if any, which is usually intended for research as distinct from teaching.

My remarks on the paper are obviously conditioned by experience in my country, and some notes about the funding of research in Italy is not out of place.

One of the differences is that there is no separate program for probability and statistics, so that research in this field is administered in connection with other sciences, i.e., with mathematics or social sciences. There is a separation between probability and statistics, which goes back to the 1940s, augmented by war isolation but due chiefly to the strong personality of Corrado Gini. He gave the Italian statistical school a descriptive orientation connected with the social sciences, although probabilists such as Francesco Paolo Cantelli and Bruno de Finetti were more associated with actuarial science.

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