For Your Information

NSF Proposes New Review Criteria for Grant Proposals

The National Science Foundation (NSF) has issued a proposal to change its merit review criteria and has asked the science community for feedback. A National Science Board and NSF staff task force proposes eliminating the existing four criteria and replacing them with two criteria. The task force also recommends subquestions or "contextual elements" for each criterion to guide but not limit reviewers. Here are the proposed criteria:

1. What is the intellectual merit and quality of the proposed activity? The following are suggested questions to consider in assessing how well the proposal meets the criterion: What is the likelihood that the project will significantly advance the knowledge base within and/or across different fields: Does the proposed activity suggest and explore new lines of inquiry? To what degree does the proposer's documented expertise and record of achievement increase the probability of success? Is the project conceptually well designed? Is the plan for organizing and managing the project credible and well conceived? And is there sufficient access to resources?

2. What are the broader impacts of the proposed activity? The following are suggested questions to consider in assessing how well the proposal meets the criterion: How well does the activity advance discovery and understanding while concurrently promoting teaching, training, and learning? Will it create/enhance facilities, instrumentation, information bases, networks, partnerships, and/or other infrastructure? How well does the activity broaden the diversity of participants? Does the activity enhance scientific and technological literacy? And what is the potential impact on meeting societal needs?

At a briefing NSF director Neal Lane stressed that a) the contextual elements are noninclusive; that is, there may be other considerations for specific proposals; b) reviewers should address only those contextual elements that they consider relevant to the proposal at hand and they feel qualified to evaluate; and c) there is no universal or predetermined weighting of the two criteria—weighting would depend on the nature of the proposed activity. Lane also said that the current system is "not broken," but that the existing criteria are out of date, do not easily encompass nonresearch activities, do not align well with NSF's current strategic plan, and are not always well understood by reviewers, who sometimes ignore them. He also said that he does not anticipate that the proposed criteria will change the NSF's current portfolio nor are they designed to do so. He emphasized that the excellence of people and ideas will continue to be paramount in determining which projects are funded.

The NSF is seeking comment from the community and has put the task force's report and proposal on the NSF Web site `http://www.nsf.gov/od/lpa/meritrev.htm`, along with an automatic feedback form. Comments can also be sent to `meritrev@nsf.gov`. The National Science Board will review the task force recommendations and comments received from the community in the spring.

—from JPBM electronic news

ICMI Study on History

The International Commission on Mathematical Instruction (ICMI) is conducting an ICMI Study on The Role of the History of Mathematics in the Teaching and Learning of Mathematics. This study is led by an International Program Committee (IPC) of ten members, of whom Florence Fasanelli of the Mathematical Association of America is the U.S. representative.

The IPC has prepared a Discussion Document in which key issues related to the study are identified, presented, and discussed in a preliminary manner. The document has identified the major questions the study will address. These questions and others will be discussed in more detail at an invited study conference, to be held in France in the spring of 1998. Individuals will also conduct related research activities during the next two years. It is planned that a book will be published in late 1999 in the ICMI Study series, based on contributions to and outcomes of the conference and research activities.

The IPC for the study invites members of the mathematical community to propose or submit contributions on specific questions, problems or issues stimulated by the Discussion Document no later than June 1, 1997. These contributions will be regarded as input to the planning of the study conference. The entire Discussion Document is appearing in *L'Enseignement Mathématique*, the official organ of ICMI. But because the IPC wants to make it accessible to as many people as possible, it will also be available electronically through the MAA World Wide Web site, MAA-Online, whose URL is `http://www.maa.org`. If you cannot access the Web, you may receive a copy by contacting Florence Fasanelli, Mathematical Association of America, 1529 18th St. N.W., Washington, DC 20036; fax: 202-453-5450; e-mail: `ffasanel@maa.org`.

—Victor Katz,
University of the District of Columbia

Special Issue of the Journal of Symbolic Computation

The *Journal of Symbolic Computation* (JSC) invites submissions for a special issue on Differential Equations and Differential Algebra. Papers should contribute to the mathematical foundation for symbolic computation algorithms in these areas.

Guidelines for submittal of JSC manuscripts and the JSC style files can be found at the URL `http://www.cis.udel.edu/~caviness/jsc.html`. Manuscripts may be submitted electronically to one of the two guest editors who will handle the preparation of this special issue.

The deadline for submission of full papers is **August 1, 1997**. Notifications of acceptance/rejection will be made by March 1, 1998. Final revised manuscripts are due by July 1, 1998, and the special issue will appear in 1998–1999.

For further information contact one of the guest editors: William Sit, `wyscc@cunyvm.cuny.edu`, or Manuel Bronstein, `bronstein@inf.ethz.ch`.

—from JSC Announcement

Call for Nominations for Popov Prize

The second Vasil A. Popov Prize will be awarded at the Ninth Texas International Conference on Approximation Theory, to be held in January 1998. The prize has been established in memory of Vasil A. Popov and his contributions to approximation theory and related areas of mathematics.

The prize is awarded every three years for outstanding research contributions in fields related to Popov's work. Albert Cohen was the first recipient of the prize, awarded in 1995. Eligibility for the prize is restricted to mathematicians who did not have their terminal degrees on June 1, 1991. The winner of the prize will be asked to deliver a plenary lecture at the Texas conference.

The selection committee for the Popov Prize consists of: Charles Chui, Ronald A. DeVore, Paul Nevai, Allan Pinkus, Pencho Petrushev, and Edward Saff. Nominations should include a brief description of the research related to the nomination. Other supporting material may also be submitted. Nominations should be sent to the chair of the selection committee: Ronald A. DeVore, Department of Mathematics, University of South Carolina, Columbia, SC 29208. The closing date for nominations is **June 1, 1997**.

—Announcement of the Popov Prize Selection Committee

New Website for JPBM's Congressional Action Network

Information on the Joint Policy Board for Mathematics (JPBM) Congressional Action Network and selected items from JPBM's Congressional Action Kit can now be found on the Web, courtesy of The Math Forum Website maintained at Swarthmore College, `http://forum.swarthmore.edu/social/jpbmcan`. The Congressional Action Network was established by JPBM to facilitate communications between mathematical scientists and their legislators. Participants are offered tips and resources for conveying to policymakers the value and impact of the mathematical sciences and the national importance of federal support for research and education. The Congressional Action Kit is also available via regular mail. To join the network, send your e-mail address to `jpbm@math.umd.edu`; include your postal address if you would like the kit mailed to you. *—JPBM electronic news*

Call for Nominations for Schafer Prize

The Executive Committee of the Association for Women in Mathematics (AWM) calls for nominations for the Alice T. Schafer Mathematics Prize, to be awarded to an undergraduate woman for excellence in mathematics. All members of the mathematical community are invited to submit nominations for the prize. The nominee may be at any level in her undergraduate career. A nominee must either be a U.S. citizen or have a school address in the USA. The prize will be awarded at the Joint Prize Session at the Joint Mathematics Meetings in Baltimore, Maryland, January 1998.

The Schafer Prize was established in 1990 by the Executive Committee of the AWM and is named for former AWM president and one of its founding members, Alice T. Schafer, who has contributed a great deal to women in mathematics throughout her career.

A letter of nomination should include, but not be limited to, an evaluation of the nominee based on the following criteria: 1) quality of performance in advanced mathematics courses and special programs, 2) demonstration of real interest in mathematics, 3) ability for independent work in mathematics, and 4) performance in mathematical competitions at the local or national level, if any. Supporting materials (e.g., reports from summer work using mathematics, copies of talks given in student chapters, transcripts, etc.) should be enclosed with the nomination.

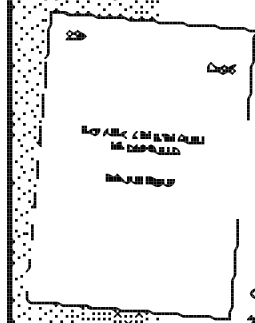
Send *five* complete copies of nominations for this award to: The Alice T. Schafer Award Selection Committee, Association for Women in Mathematics, 4114 Computer & Space Sciences Building, University of Maryland, College Park, Maryland 20742-2461. Nominations via e-mail or fax are not acceptable.

For further information contact the AWM by telephone at 301-405-7892 or by e-mail at `awm@math.umd.edu`. The nomination deadline is **September 15, 1997**.

—from AWM Announcement

American Mathematical Society

Algebra and Algebraic Geometry

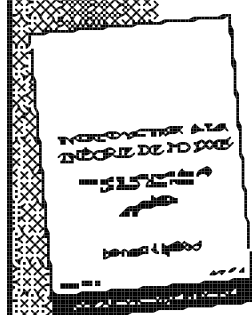


Espaces Symétriques de Drinfeld

Alain Genestier

D'après Drinfeld, l'espace symétrique $\mathfrak{p}$-adique $\hat{\Omega}^d$ (ou plus exactement, $\hat{\Omega}^d \hat{\otimes}_{\mathcal{O}} \hat{\mathcal{O}}^{\mathrm{nr}}$ ou $\hat{\mathcal{O}}^{\mathrm{nr}}$ est l'Henselisé strict de l'anneau de valuation discrète $\mathcal{O}$ en son point fermé) représente le problème de modules des $\mathcal{O}_{D^r}$-modules formels spéciaux munis d'une rigidification convenable. Dans ce travail, nous présenterons une autre approche de ce résultat. Celle-ci ne sera valable que lorsque l'anneau de base $\mathcal{O}$ est d'égale caractéristique, mais nous permettra d'obtenir une description locale du $\mathcal{O}_{D^r}$-module formel universel. Toujours dans le cas où l'anneau de base $\mathcal{O}$ est d'égale caractéristique, nous nous intéresserons aussi au revêtement de Drinfeld Σ^d, pour lequel nous construirons un analogue de l'accouplement de Weil.

Astérisque, Number 234, 1996, 124 pages, Softcover, List $27; Individual AMS member $24; Order code AST/234NA



Introduction à la Théorie de Hodge

José Berlin, Jean-Pierre Demailly, Luc Illusie, and Chris Peters

Le présent ouvrage développe un certain nombre d'éléments fondamentaux de la théorie de Hodge. Il est destiné principalement aux étudiants et chercheurs non spécialistes du sujet, qui souhaitent se familiariser en profondeur avec celui-ci et se faire une idée de l'état actuel de la recherche. Le texte comporte trois parties consacrées à des aspects variés et complémentaires de la théorie: aspects analytiques (méthodes L^2), algébriques (utilisation de la caractéristique $\mathfrak{p}$), et enfin applications à la géométrie algébrique au travers de l'étude des variations de structure de Hodge et des conjectures de symétrie miroir pour les variétés de Calabi-Yau.

Panoramas et Synthèses, Number 3, 1996, 267 pages, Softcover, List $40; Individual AMS member $36; Order code PASY/3NA

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