
From the AMS

The Council Meeting in Minneapolis

The Council of the American Mathematical Society met at 9:00 a.m. on Sunday, 14 August 1994, in Minneapolis, Minnesota.

There were seventeen members present. President Graham presided and called the meeting to order at 9:05.

The minutes of the April 1994 Council were approved with minor corrections noted by the Secretary. The minutes of the Business by Mail which the Council had conducted were also approved.

The Council considered, in executive session, recommendations for election to various of the editorial committees.

William Fulton was elected chair of the *Journal of the AMS* Editorial Committee with term beginning on 01 February 1995. Clifford Taubes was elected to the committee for a three-year term beginning on the same date, and Andrew Odlyzko was reelected to a three-year term.

The Council elected Nolan Wallach as editor for Research Surveys on the *Bulletin* Editorial Committee to complete the unexpired term of Palais and for a term of three years beginning on 01 February 1996. The Council reelected Murray Protter for a second term as editor for Book Reviews. Protter's second term begins on 01 Feb 1995.

The Council elected Karen Uhlenbeck for a position on the *Colloquium* Editorial Committee for a normal term of three years beginning on 01 February 1995.

The Council approved the reelection of Frank W. J. Olver to the *Mathematics of Computation* Editorial Committee for a term of three years commencing on 01 Feb 1995.

The Council approved the reelection of Richard T. Durrett to a four-year term on the *Transactions* and *Memoirs* Editorial Committee. It also elected Daniel Burns and Jill Pipher to four-year terms on the same committee. The Council approved creation of a new editorial position in algebra on the *Transactions* and *Memoirs* Editorial Committee and then elected Larry Ein to this position for a four-year term beginning on 01 February 1995.

The Committee on the Profession considered a "Statement of Protection against Discrimination" which was pro-

posed, initially, by the Mathematical Association of America. It recommended that the statement be adopted by the Council so as to "speak in the name of the Society". The statement was first submitted to the Council's Executive Committee (EC), which considered it at its meeting in May 1994. The EC made several revisions and forwarded the resolution to the Council with a recommendation that the Council pass it so as to speak in the name of the Society. The Council waived prior notification and agreed to vote on this matter so as to speak in the name of the Society. After a motion to amend was passed, it was agreed to refer the amended resolution back to the Committee on the Profession and the Committee on Meetings and Conferences.

The MAA's Coordinating Council on Prizes and the Society's Committee on the Profession recommended a joint AMS-MAA Prize for Outstanding Research in Mathematics by an Undergraduate Student. Approval of the Council was requested. After discussion, the Council approved the regulations "in principle", with final wording to be negotiated by the AMS Committee on the Profession and the MAA Coordinating Council on Prizes and with final approval of the regulations delegated to the Executive Committee. A recommendation that the Board of Trustees fund the prize was implicit in the approval in principle.

The Committee on Publications recommended policy regarding the *Electronic Research Announcement Journal* for adoption by the Council. The Council adopted the following policy:

1. THE EDITORIAL BOARD. The Editorial Board will consist of approximately twenty-five people representing all main areas of mathematics, one of whom is a managing editor. In order to establish high standards and high visibility, the Editorial Board should include leading active mathematicians in the respective fields.
2. THE PROCEDURE. Each member of the Editorial Board should have an agreed-upon sufficiently broad area of expertise (such as algebraic topology, applied analysis, mathematical physics, logic, etc.) which may (as in *CMP*) or may not (as in *MRL*) appear in an official advertisement.
 - 2.1. A paper can be submitted to any editor. If it belongs to the editor's area of expertise, (s)he may make a rec-

ommendation based on either her/his own or an outside review. (S)he has a right to reject the paper.

2.1.1. If a recommendation is positive, it is communicated to the whole EB. An abstract and a review are posted (electronically) for a fixed period of time (1 or 2 weeks), during which any editor has a right to request the text of an RA and make comments and suggestions. If no consensus is reached, a vote should be taken, and a fixed high proportion (75% or 80%) of the editors should approve.

2.1.2. If a recommendation is negative, the author is advised to withdraw the RA. In case of disagreement the managing editor sends the paper for an outside review; then this review is posted with the original negative review, and the previous procedure follows (see 2.1.1).

2.2. If the editor to whom the paper is sent is not considered an expert in the field, (s)he should forward it to the managing editor or to the expert editor.

2.3. Papers may also be submitted to the managing editor, who forwards them to expert editors. Expert editors should be encouraged to consult each other and make joint recommendations, especially in cases when the area of a RA cannot be clearly delineated.

3. THE GUIDELINES FOR QUALITY CONTROL. It is realized that to review a RA is harder than [to review] a regular paper. Although the editors should not routinely request an additional text with complete proofs, the existence of such a text, even in an imperfect form, could be used in the decision making process. For example, an editor handling the paper may ask for a preprint and guarantee, if necessary, that (s)he will use it only for the purpose of review and will not disseminate it. Other possible sources of information are seminar talks, opinions of individuals who understand the proof, etc.

Vice-President Jean Taylor had requested discussion by the Council on whether the Committee on Science Policy (CSP) and the AMS would support a summer salary cap if this were advocated for all scientists supported by NSF and not just mathematicians. Taylor requested and received unanimous consent to present four resolutions for discussion and possible action. The first was: @block text:1. The Council directs the CSP to bring any contemplated response to the question of how many mathematicians should be supported before the Council for prior approval.

The motion was tabled “until the chair of the Committee on Science Policy is present at the Council.”

The CSP had been discussing whether to recommend “salary caps” to the National Science Foundation. Taylor moved that @block text:2. The Council requests the Committee on Science Policy to prepare a discussion paper on “adequate support”, including the issue of salary caps, for the Council (in January if possible).

This was seconded and passed by the Council.

A third resolution was not presented. The fourth resolution died for lack of a second.

The Society has had a long and mutually beneficial agreement with the *American Journal of Mathematics* (AJM) published by the Johns Hopkins University Press. According to the formal agreement between the Society and the *Journal*, either party to it, the AMS on the one hand and

the AJM Editorial Board on the other, can unilaterally terminate it. The Secretary and the Executive Director had received a letter from the managing editor, Bernard Shiffman, which stated that the AJM Editorial Board had terminated this agreement.

The AMS appointments to the AJM Editorial Board are elected by the Council upon recommendation by the Editorial Boards Committee. One of these editors is a member of the Council according to the current Bylaws. Since the AMS will no longer have the opportunity to elect members to this editorial board, the Bylaws should be amended to reflect this. Accordingly, the Secretary submitted a proposed amendment to the Bylaws that has the effect of eliminating this position on the Council.

The following amendment to the Bylaws was approved for ratification by the members in the 1995 election.

Proposed Amendment to Article III, Section 1, of the Bylaws.

Section 1. There shall be eight editorial committees as follows: committees for the *Bulletin*, for the *Proceedings*, for the *Colloquium Publications*, for the *Journal*, for *Mathematical Surveys and Monographs*, for *Mathematical Reviews*; a joint committee for the *Transactions* and the *Memoirs*; and a committee for *Mathematics of Computation*.

Since there would be no Society representative on this editorial committee, the Council changed to zero the number of Society representatives to the *American Journal of Mathematics* Editorial Board as of 01 February 1995.

Lee Lorch, as representative from the Canadian Mathematical Society, requested permission to move a resolution which the Council then placed on the agenda and passed. The resolution requested that the Secretariat approve a reciprocity agreement with the South African Mathematical Society.

Tian Jing Huang, a member of the Society and a Chinese citizen, was scheduled to read a contributed paper at the Mathfest in Minneapolis. Upon entering the United States in Seattle on his way to Minneapolis, he was detained by the Immigration and Naturalization Service (INS). The Council suggested that the President send a telegram to the Seattle offices of INS asking that Tian be released in order that he be able to deliver his paper.

It was reported to the Council that the Executive Committee and Board of Trustees had adopted the following policy on copyrights.

JOURNALS, PROCEEDINGS, AND COLLECTIONS:

- AMS desires that authors transfer copyright but permits authors to hold copyright in exchange for broad rights (consent) to publish;
- AMS will allow a flexible range of reproduction, including inclusions of AMS published articles in publications of other publishers without permission or fees and electronic distribution over the Internet, as long as it is not part of a document-delivery service; and
- AMS will provide fifty free offprints per article; a copy of an AMS published book; if the article appears in the book, and an electronic copy of the production files.

BOOKS:

- At contract signing, the AMS agrees to provisionally publish the work as a book;

- AMS desires that authors transfer copyright but permits authors to hold copyright in exchange for broad rights (consent) to publish; however, the author contracts not to use essentially the same material in any competing publication for a period of time that includes a period where there may be risk to the AMS financial investment;
- AMS will negotiate a royalty, will negotiate that a certain number of copies of the book go to the author gratis, and will sell unlimited numbers of the book to the author for personal use at the member discount rate.

The Council adjourned at 3:15 p.m.

Robert M. Fossum
Secretary
Urbana, Illinois

AMS Rides the Electronic Wave: New Services Available on e-MATH

The last several years have seen tremendous changes in the availability and power of electronic information systems. The Internet offers a veritable groaning board of electronic morsels—anything from talk sessions about sports to bibliographic sources at the Library of Congress. With so many choices available, it can be tough getting at what is interesting to you without spending hours grazing the Net.

The AMS has developed a number of tools intended to make more easily accessible the wide variety of information useful to mathematical scientists. In particular, the Society has been working hard on a number of projects to improve the electronic services it provides to the mathematical sciences community. The most ambitious works-in-progress are the AMS Preprint Server and the Society's first electronic-only journal, *Electronic Research Announcements*.

The AMS Preprint Server


Preprint servers, which have proliferated throughout the international mathematical community, allow users to browse, view, and download copies of preprints of mathematics papers. The AMS Preprint Server, which is being developed in partnership with the Geometry Center at the University of Minnesota, carries preprints in all areas of mathematics; other servers, such as the K-theory Preprint Server at the University of Chicago, cater to specialized areas. The most important feature of the AMS Preprint Server is its unique umbrella structure, which provides easy access to preprints wherever they reside. Through the AMS Preprint server, one can get at preprints that have been submitted directly to the AMS server as well as those submitted to another dozen or so specialized preprint servers outside the AMS.

For example, one might search the AMS server for preprints by a particular author; a listing of titles of preprints by that author appears on the

screen, and choosing one of the titles leads to an abstract of that preprint. If the preprint resides on the AMS Preprint Server, one can view or download it immediately. If it resides on, say, the Algebraic Geometry Preprint Server at Duke University, the AMS Preprint Server will automatically connect across the Internet to that server and locate that particular preprint. The plan is for the AMS to be the clearinghouse for all preprints in mathematics, while widening access to more specialized preprint servers. In cooperation with this plan, other servers have begun sending to the AMS Preprint Server abstracts of the preprints they receive. Ultimately, users will not have to know ahead of time where preprints they are interested in are stored; they can search through one central source.

Even if you are a computer novice, you will find the AMS Preprint Server very easy to use. The hypertext links in the AMS Preprint Server make it particularly accessible; basically, you can click on any highlighted entry and get more information on that entry. You can click on the entry that brings up a list of recent preprints (the last 100 submissions), you can browse through preprints organized by *Mathematical Reviews* Classification Number, and you can search titles and abstracts for keywords. Once you are connected to a particular preprint, you can choose to view it on-screen (assuming one has an appropriate terminal and software for on-screen viewing of typeset documents) or download a file onto your machine. The preprints are available in $\text{T}_\text{E}_\text{X}$, Postscript, or .dvi formats (Acrobat's PDF should be available soon as well). At the bottom of each preprint there is a field for "Notes", which might contain information about other servers where the preprint is posted, the address of the author, and so on.

In order to facilitate bibliographic references, each preprint is assigned a number in the format AMSPPS#YYYYMMCCNNN, where YYYY is the year of submission, MM is the month of submission, CC is the *Mathematical Reviews* Classification Number, and NNN is a se-



AMS Preprint Server

(AMSPPS)

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Preprint Submissions:

- [Interactive Form](#) (Used for abstracts/URL submissions.)
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The AMS Preprint Server home page

AMS Preprint Server

Mathematics Subject Classification: 35Q; March 1995

Preprint #199503-35-002

Flato, Moshe; Simon, Jacques C.H.; Taflin, Erik, *Asymptotic completeness, global existence and the infrared problem for the Maxwell-Dirac equations.*

Abstract: In this monograph we prove that the nonlinear Lie algebra representation given by the manifestly covariant Maxwell-Dirac (M-D) equations is integrable to a global nonlinear representation U of the Poincaré group \mathcal{P}_0 on a differentiable manifold \mathcal{U}_∞ of small initial conditions for the M-D equations. This solves, in particular, the Cauchy problem for the M-D equations, namely existence of global solutions for initial data in \mathcal{U}_∞ at $t=0$. The existence of modified wave operators Ω_+ and Ω_- and asymptotic completeness is proved. The asymptotic representations $U^{\{\varepsilon\}}_g = \Omega^{-1} \varepsilon \circ U_g \circ \Omega \varepsilon$, $\varepsilon = \pm$, $g \in \mathcal{P}_0$, turn out to be nonlinear. A cohomological interpretation of the results in the spirit of nonlinear representation theory and its connection to the infrared tail of the electron is given.

Keywords:

Classifications: Primary: 35Q; Secondary: 81Q05, 81V10, 22E60, 22E65

This item is available as:

<http://xxx.lanl.gov/abs/hep-th/9502061>

Contact: flato@u-bourgogne.fr (Moshe Flato)

Copyright: Full copyright maintained by author.

Preprint Expiration Date: March 9, 1997

Notes

An example of a Preprint Abstract

quential number. The AMS also plans to add to the Preprint Server an e-mail interface through which individuals would receive notification in e-mail of recent postings in specific subject areas. This interface will also permit retrieval of preprints via e-mail.

The AMS encourages submissions to the AMS Preprint Server. Even if you are submitting your preprint to another electronic server, your preprint will enjoy wider accessibility if you also post it on the AMS server. It is easy to post an abstract of your preprint interactively, and there is also a template into which the preprint can be inserted and then sent in e-mail or transferred via ftp. Instructions for these procedures can be found when you connect to the Preprint Server on e-MATH. What about revisions and withdrawals? When the AMS receives a preprint, a security code is generated and sent to the author. That code, together with the AMS preprint number, must be used to make any alterations to the preprint or to withdraw it. Submis-

sions to the AMS Preprint Server can never be entirely expunged; a preprint that has been withdrawn will continue to be listed on the server, but attempts to access the preprint will result in a message saying that the preprint has been withdrawn.

Electronic Research Announcements

Electronic Research Announcements of the AMS (ERA-AMS) is the Society's first electronic-only journal. ERA-AMS grew out of the research announcements that have traditionally appeared in the *Bulletin*. The research announcements, about forty of which were published each year, provided short descriptions of new mathematical results. The goal was to inform a broad mathematical audience of significant new breakthroughs without providing the full, technical proofs of the results.

With the reorganization of the content of the *Notices* and the *Bulletin*, the AMS Council decided in August 1994 that the research announcements in the *Bulletin* should be replaced by research reports. Rather than announcing a newly established result, a research report provides a brief and timely account of a recent accomplishment in mathematical research. It is expected that research reports, about twenty-four of which will be published each year, will frequently be written by specialists other than the individuals immediately involved in the research. The Council also decided that the research announcements should be reestablished in electronic form, and ERA-AMS was launched.

The most obvious advantage to putting research announcements online is that they are much more timely and they can

potentially reach a wider audience. In addition, the shift to the electronic medium signals the Society's commitment to move ahead in electronic publishing. "We all realize that we are on the verge of a new era in scholarly publication," says ERA-AMS Managing Editor Svetlana Katok of Pennsylvania State University. "It is only natural that the AMS is taking a leading role in this process."

In addition to the differences in print versus electronic presentation, there have been other changes as well. One of the biggest is that the ERA-AMS journal has a larger (26-person) and more broadly representative editorial board, plus a managing editor. However, the goal has remained largely the same: to publish high-quality and reliable announcements that bring to light some of the most important current results in mathematics. "Publication in the Research Announcements section of the *Bulletin* was very prestigious," notes ERA-AMS's Katok. "That is exactly what

we want for the *ERA-AMS*." Authors of the announcements should have full proofs completed, even if all of the consequential results have not yet been worked out. The reasons for publishing a research announcement might be to establish priority or to make a claim on a particular topic and then continue to develop it. It is anticipated that a longer paper about the announced result, with full proofs, will be published elsewhere.

The relationship between the Managing Editor of the *ERA-AMS* and the Editorial Board is very different from that between the editor-in-chief and the editorial board members for other journals that have large editorial boards. "The initiative and responsibility for decisions almost completely lies with the individual Editorial Board members, with the Managing Editor acting as coordinator," Katok notes. Each Editorial Board member is responsible for a particular area of expertise. Submissions may be sent to any member of the Editorial Board or to the Managing Editor. Once a submission is in the hands of the appropriate Editorial Board member, he or she can recommend acceptance, solicit reviews, or reject the paper. If acceptance is recommended, the entire Editorial Board must achieve a consensus on the paper before it is published. If there is disagreement, the Managing Editor will solicit additional reviews.

Generally, the announcements should not exceed ten pages. The Editorial Board will make every effort to minimize the time between submission and publication. Submissions are welcomed and encouraged and may be made to any member of the Editorial Board or to the Managing Editor. E-mail or ftp can be used, and one can include \TeX files, graphics files, auxiliary \LaTeX files, etc. For further information, including a list of Editorial Board members, log into e-MATH and click on the entry "AMS Electronic Publications".

Other New Developments

As the electronic revolution continues to unfold, the AMS is striving to make available the best and most complete electronic services in the mathematical sciences. In addition to the AMS Preprint Server and the *ERA-AMS* journal, the AMS is expanding the services it provides on e-MATH. There will soon be improvements to Information about AMS meetings; Mathematics Calendar is now available; online access to the *Bulletin*

For Your Information

Preprints are accessible on the World Wide Web at the address:

<http://www.ams.org/preprints/>

The Electronic Research Announcements may be reached at:

<http://www.ams.org/era/>

Both services can also be reached via the AMS e-MATH home page at:

<http://www.ams.org/>

has been significantly enhanced; and the *Notices* went online starting with the January 1995 issue. In addition to these services available for free on e-MATH, the AMS will offer in 1996 subscriptions to MathSciNet, an online, hypertext-linked version of the *Mathematical Reviews* database, as well as electronic versions of the primary AMS journals.

The Society's Electronic Products and Services Department welcomes comments. Suggestions, as well as requests for information, may be directed to: eps@math.ams.org. The

telephone still works too: 401-455-4000.

—Allyn Jackson

Electronic Research Announcements

OF THE

AMERICAN MATHEMATICAL SOCIETY

The American Mathematical Society's first electronic journal, *Electronic Research Announcements* of the AMS, is ready for submission of papers.

- [Information about ERA-AMS](#)
- [Editorial Board](#)
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Please note that before papers accepted for publication may be posted for public view, a [Consent To Publish](#) form must be retrieved, printed, signed, and mailed to the Managing Editor of ERA-AMS at the address below:

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The *ERA-AMS* journal home page