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Prof. Ljubomir T. Grujic  
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Yugoslavia (Serbia)

Dear Prof. Grujic:

I regret that due to United Nations Sanctions Pergamon Press (as well as others) have temporarily suspended publication of all manuscripts from your country. I much regret that but we cannot give consideration to your paper "Solutions to Lyapunov Stability via  $\delta$ -Bounded Sets."

Cordially



William A. Nash  
Editor-in-Chief



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## Letters to the Editor

### Quadratic Reciprocity in Dickson's *History*

Everybody knows that Dickson's three-volume *History of the Theory of Numbers* covers all of number theory up to about 1918. Right? Wrong. Try looking up quadratic reciprocity. It is virtually absent: the subject indices for volumes I and II contain nothing; the ten references in the subject index of volume III (listed under "reciprocity") are all peripheral passages that occur in discussing other topics.

When I tell this to somebody I am usually greeted first with disbelief and then with astonishment. Just think—he omitted quadratic reciprocity, the crown jewel of elementary number theory!

There is an explanation: he farmed it out to a student. This should not come as a total surprise, for Chapter 6 of volume III on class numbers is acknowledged as the Ph.D. thesis of G. H. Cresse.

Here are some details. A University of Chicago Ph.D. degree was awarded to Albert Everett Cooper in June 1926. The thesis title was "A topical history of the theory of quadratic residues". (It is interesting to note that on page xx of the preface to volume II, Dickson says that he initially planned to use the words "topical history" himself but was talked out of it by a prominent historian.) On page 375 of volume 33 (1927) of the *Bulletin of the AMS*, Cooper's thesis is listed among the Ph.D.s awarded in 1926.

The thesis is sitting safely in the Chicago mathematics library, or at least it was when I checked about a year ago. It faithfully follows the style of the master. The text proper runs ninety-eight pages, and there are ten pages of auxiliary material. The first entry refers to Alsidschzi, about 970 A.D., and the last to Landau, 1918. The vita reveals that Cooper was born on January 26, 1893, and took three degrees at the University of Texas, winding up with an M.A. in 1924.

How did I learn about this? I have forgotten. Here's one fact: many years ago I sent a copy to Bill LeVeque at his request. How did he know? On June 30, 1993, Bill said he thought I had told him. My guess would have been that he told me. It looks like we'll never know.

At any rate I have decided (a) the world of mathematics might be interested, (b) a good procedure would be a letter to the *Notices* (if they accept it).

To conclude I note that the three reviews I located, in the *Bulletin*, the *Monthly*, and the *Jahrbuch über die Fortschritte der Mathematik* make no mention of the omission. For someone who would like to read any of the reviews (they are raves) I give the references.

*Bulletin*. I: 26 (1920), 125–132 (D. N. Lehmer). II and III: 30 (1924), 65–70 (Vandiver).

*Monthly*. I: 26 (1919), 396–403. II: 28 (1921), 72–78. III: 30 (1923), 259–262 (Carmichael).

*Jahrbuch*. I and II: 47 (1919–1920), 100–104. III: 49 (1923), 100–101 (Lichtenstein).

Irving Kaplansky  
Mathematical Sciences  
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(Received July 22, 1993)

### Yugoslav Mathematicians and the UN Sanctions

Mathematicians from Yugoslavia (Serbia and Montenegro) are confronted these days with a serious problem which in our opinion raises disturbing questions concerning the entire mathematical community. Some of the well-known publishers of mathematical journals (Elsevier, Pergamon Press) have decided to temporarily stop publishing papers of Yugoslav scientists due to the UN sanctions against Yugoslavia. We cite two letters as evidence, the first from one of Elsevier's publishing editors addressing the executive editors, and the second sent to a Belgrade mathematician who submitted his paper to an Elsevier journal. In the first letter the argument is "[In order] to conform with UN sanctions, we [Elsevier] must decline to publish papers from authors in Serbia and Montenegro". It contains general instructions,

including the phrases which should be used in communication with Yugoslav authors such as, "We shall be happy to retain his or her paper until sanctions are lifted." At the end of this letter there is a generous suggestion: "Authors of such papers may, of course, withdraw them should they wish to do so." The second letter is from an editorial office manager of *Theoretical Computer Science B*, published by Elsevier Science Publishers. Here is an excerpt:

Dear Dr. . . . ,

I am pleased to inform you about the acceptance of your manuscript. . . . Unfortunately, due to the UN embargo, we are not allowed to publish your paper. When the embargo is lifted, however, your paper will be published at the earliest possible occasion.

Thanking you for this contribution to our journal, . . .

These and other similar letters raise a number of questions. **On what bases are Yugoslav mathematicians (scientists) discriminated against?** The UN sanctions are based on the UN Security Council Resolution 757 (30 May 1992). Here is the relevant part:

*The Security Council . . . decides that all States shall*

*(8b) Take the necessary steps to prevent the participation in sporting events on their territory of persons or groups representing the Federal Republic of Yugoslavia (Serbia and Montenegro);*

#### Letters to the Editor

Letters submitted for publication in the *Notices* are reviewed by the Editorial Committee.

The *Notices* does not ordinarily publish complaints about reviews of books or articles, although rebuttals and correspondence concerning reviews in *Bulletin of the American Mathematical Society* will be considered for publication.

Letters should be typed and in legible form or they will be returned to the sender, possibly resulting in a delay of publication. All published letters must include the name of the author. Letters which have been, or may be, published elsewhere will be considered, but the Managing Editor of the *Notices* should be informed of this fact when the letter is submitted.

The committee reserves the right to edit letters.

Letters should be mailed to the Editor of the *Notices*, American Mathematical Society, P. O. Box 6248, Providence, RI 02940, or sent by e-mail to [notices@math.ams.org](mailto:notices@math.ams.org), and will be acknowledged on receipt.

(8c) *Suspend scientific and technical cooperation and cultural exchanges and visits involving persons or groups officially sponsored by or representing the Federal Republic of Yugoslavia (Serbia and Montenegro);...*

How do local authorities in different countries interpret and enforce the resolution? We do not know any example of sanctions applied to individuals in sports, culture, and fine arts. The explanation given is that they represent themselves and not the Yugoslav government. So, the question above could be rephrased as follows: **Is the publishing of an individual scientist's paper an activity which should be seen as cooperation with the Yugoslav government?**

Among those affected by this policy are professionals, members of international mathematical societies. Is it not reasonable to expect that the largest societies like the American Mathematical Society should play a more active role in such global decisions affecting their members, or should it be left to publishers (editors, governments) to decide?

On behalf of Yugoslav mathematicians, we kindly ask our colleagues, the AMS, and the whole mathematical community to support our request for immediate and public withdrawal of such discriminating decisions.

Rade Živaljević  
Mathematical Institute  
Belgrade, Yugoslavia  
(Received April 6, 1993)

**P.S.** This letter was signed by 151 mathematicians and other scientists from Yugoslavia and abroad.

### Biting the Bullet

Solomon Garfunkel, Saunders Mac Lane (*Notices*, July/August 1993), and virtually everyone else will agree that it is highly desirable to increase the prestige of college teachers of mathematics. The question is how to achieve that. Dr. Garfunkel seems to have two suggestions. Stated baldly, they are: reduce the prestige of research and make the education of college teachers more like that of high school teachers. Each of these, I believe, is far more likely to reduce the prestige

of the college teacher than to raise it.

Meyer Jerison  
Purdue University  
(Received August 6, 1993)

**Response from Solomon Garfunkel:** Professor Jerison misses the point. My concerns are with the effectiveness of college teachers, not their prestige. However, I cannot but believe that if we improve undergraduate instruction we will also improve our professional lives and enhance our image to the general public.

### Ignoring the Lessons of History

Everyone seems to be aware of the horrible conditions faced by new Ph.D.s in mathematics who are trying to find a position. See the recent article in the July/August 1993 issue of the *Notices*.

About five years ago at a meeting of the American Mathematical Society, I attended a conference devoted to ways and means of increasing the number of graduate students in mathematics. The speakers presented charts and data showing that the number of graduate students was not as large as it should be, and there was much discussion about ways to increase this number. Since this was five years ago, some details are fuzzy in my mind, but I recall that during the meeting I tried to ask why we wanted to increase the number of Ph.D.s, and I pointed out that somewhat earlier students faced exactly the same horrible conditions in the job market that they do today. Those in charge of the meeting paid little attention to my remarks, but they were tolerant enough to permit this obstructionist to talk (but not for very long). We are now witnessing the tragic results of their efforts to produce still more Ph.D.s, but as usual the suffering is visited upon the innocent and not on the perpetrators of the crime. If a person loves mathematics and wishes to devote his life to that study, he or she should be encouraged to do so. But in my opinion it is just plain stupid to try to entice people into that study, and this was exactly the thrust of that gathering. One can argue that nobody could foresee the reduced teaching budgets throughout the nation, nor could they imagine the flood of well-qualified immigrants. However,

trying to lure an undecided student into a particular study was and is just plain wrong. Many students who devoted four or more years' training to do research in pure mathematics must now readjust to teaching arithmetic or basic algebra (assuming they can find such a job) or drop mathematics and retrain themselves for another type of work. This was exactly the situation about ten years ago, but our fearless leaders ignored the lessons of history.

A. W. Goodman  
The University of South Florida  
(Received August 6, 1993)

### Comments on the Situation in Russia

I am a mathematician and a recent emigrant from Russia. I would like to make some comments on the interesting articles on mathematics in the fSU (*Notices*, volume 40, number 2).

1). I share Professor Arnold's indignation with Victor Sadovnichy, the present rector of Moscow University, and his clique. I also share his indignation at anti-Semitism in Russia. However, Professor Arnold grossly misleads his readers when he claims that the present governments of Russia and other newly independent states are "Fascist" (p. 105). Sadovnichy is not (yet) the government. One might rather compare Yeltsin's ineffective government with the Weimar Republic, which could not solve Germany's problems in the 1920s. It is regretful also that no mathematicians from other than Russia of the newly independent states are mentioned in the *Notices*.

2). Professor MacPherson (p. 117) lists three reasons why mathematicians emigrate from Russia now: economic, academic, and political. There are at least two more. One is the feudal character of the Russian science. More than once my supervisor at Moscow University cornered me into doing some work which he pretended to have inspired. I tried to obtain another research position in Moscow and failed. It turned out to be easier to emigrate!

Second, the moral atmosphere in all the privileged strata of Russian society has become so poisoned, cynical hypocrisy is so overwhelming that this