Council Meeting
Sofia 10, 11 July 2010
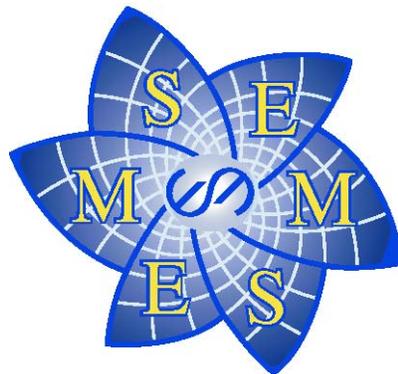
Contents

Societatea de Matematică din Republica Moldova

To the Council of the European Mathematical Society

Upon the invitation of the president Prof. Ari Laptev, the Mathematical Society of the Republic of Moldova (SMM) would like to express its intention to join the European Mathematical Society as a Group I full member.

Mathematical Society of the Republic of Moldova was founded in the 50's, XX century, and since then has been the only association gathering mathematicians of Moldova. At present, it has 197 members, most of them have scientific or academic degrees, from all over the country and about 40% of its members are women. It is planned to extend the membership to teachers in mathematics. Since 2001 Mathematical Society of Republic of Moldova organizes once in 3 years national conferences, many national and international scientific events.

Mathematical community of the Republic of Moldova publishes 3 international mathematical journals (*Buletinul Academiei de Ştiinţe a Republicii Moldova. Matematica*, *Computer Science Journal of Moldova* and, in cooperation with polish colleagues, *Quasigroups and Related Systems*) and a few university mathematical journals. Also the known edition *Matematiceskie issledovanija* of the Institute of Mathematics of the Academy, issued till 1992, was digitalized by Center for Retrospective Digitization, Goettingen (GDZ).

Sincerely yours,

Mitrofan Cioban
President of the Mathematical Society of the Republic of Moldova
Chişinău, 2010, June

Candidates for the Executive Committee

President:
Marta Sanz-Solé

Vice-Presidents:
Mireille Martin-Deschamps
Martin Raussen

Treasurer:
Jouko Väänänen

Secretary:
Stephen Huggett

Members, two from:
Vasile Berinde
Rui Loja Fernandes
Ignacio Luengo
Volker Mehrmann
Jiří Rákosník

Vasile BERINDE: Brief CV and Statement

(More details on my personal web page: http://vberinde.ubm.ro/)

Qualifications

M. Sc. in Mathematics and Computer Science, "Babes-Bolyai" University of Cluj-Napoca, 1979
PhD in Mathematics, "Babes-Bolyai" University of Cluj-Napoca, 1993

Current position

Full Professor, Head of Department: Department of Mathematics and Computer Science, Faculty of Sciences, North University of Baia Mare

Editorial Appointments

2003: Editor-in-Chief of *Carpathian Journal of Mathematics*
http://carpathian.ubm.ro/
2002: Associate Editor of *Newsletter of European Mathematical Society*
http://www.ems-ph.org/journals/journal.php?jrn=news/
1992: Editor-in-Chief of *Creative Mathematics and Informatics*
http://creative-mathematics.ubm.ro/
1991-2002: Associate Editor-in-Chief of *Carpathian Journal of Mathematics*
http://carpathian.ubm.ro/
2000: Associate Editor of *Fixed Point Theory*
http://www.math.ubbcluj.ro/~nodeacj/sfptcj.html

Administration Appointments

1995-1997: Head of Department, Department of Mathematics and Computer Science, North University of Baia Mare
1997-1999: Dean, Faculty of Sciences
1999-present: Head of Department, Department of Mathematics and Computer Science
2000-present: Director of the Research Centre "Pure and Applied Mathematics", North University of Baia Mare
2005-present: Director of the Doctoral Program in Mathematics, North University of Baia Mare

Research interests

Nonlinear Analysis. Fixed Point Theory
Fixed Point Iterative Methods
Mathematics Education and History of Mathematics

Selected books

1. Vasile Berinde, *Iterative Approximation of Fixed Points,* Springer Verlag, Lectures Notes in Mathematics, 1912, 2007
2. Vasile Berinde, *Exploring, Investigating and Discovering in Mathematics,* Birkhauser Publishing House, 246 pages, 2004

Selected articles

(1)   Vasile Berinde, *Existence and approximation of solutions of some first order iterative differential equations,* Miskolc Math. Notes 11 (2010) (accepted)

(2)   Vasile Berinde, *Approximating common fixed points of noncommuting almost contractions in metric spaces,* Fixed Point Theory 11 (2010) (accepted)

(3)   Vasile Berinde, *Common fixed points of noncommuting discontinuous weakly contractive mappings in cone metric spaces,* Taiwanese J. Math. 14 (2010), no. 4 (in print)

(4)   Vasile Berinde, *Common fixed points of noncommuting almost contractions in cone metric spaces,* Math. Commun., 15 (2010), No. 1, pp. 229-241

(5)   N. Hussain, M.A. Kutbi, <u>V. Berinde</u>, *Dotson´s Convexity, Banach Operator Pair and Best Simultaneous Approximations*, Math. Commun., 15 (2010), No. 1, pp. 229-241

(6)   Vasile Berinde, *Some remarks on a fixed point theorem for Ciric-type almost contractions,* Carpathian J. Math., 25 (2009), No. 2, 157-162

(7)   Vasile Berinde, *A common fixed point theorem for compatible quasi contractive self mappings in metric spaces,* Appl. Math. Comput., 213 (2009), 348-354

(8)   Vasile Berinde, *Approximating common fixed points of noncommuting discontinuous weakly contractive mappings in metric spaces,* Carpathian J. Math., 25 (2009), No. 1, 13-22

(9)   N. Hussain, <u>V. Berinde</u> and N. Shafqat, *Common Fixed Point and Approximation Results For Generalized \Phi-Contractions*, Fixed Point Theory, 10 (2009), No. 1, 111-124

(10)   Vasile Berinde, *General constructive fixed point theorems for Ciric-type almost contractions in metric spaces,* Carpathian J. Math., 24 (2008), no. 2, 10-19

(11)   <u>V. Berinde</u> and M. Pacurar, *Fixed points and continuity of almost contractions*, Fixed Point Theory, 9 (2008), No. 1 23-34

(12)   M. Berinde and <u>Vasile Berinde</u>, *On a class of multi-valued weakly Picard mappings,* J. Math. Anal. Appl. 326 (2007), 772-782

(13)   Nawab Hussain, <u>Vasile Berinde</u>, *Common fixed point and invariant approximation results in certain metrizable topological vector spaces,* Fixed Point Theory Appl. 2006, Art. ID 23582, 13 pp

Statement

I feel honoured to be nominated by the EC of Romanian Mathematical Society (RMS) as a candidate for a position in the EC of EMS.

I have been involved in the activity of EMS since 2002: first as editor responsible for the column *Forthcoming Conferences*, then as an Associate Editor and, since 2006, as the EMS Publicity Officer. In that last capacity I had the opportunity to work with the EC of EMS and thus to know much on the European mathematical community and, especially, on the role EMS plays amongst European mathematicians. Last but not least, in this short period of time, I learned a lot about how the EMS Executive Committee does work for the Society and think I could contribute by my personal experience to its activity and also to ensure a geographical balance into EC. This could be also an appropriate platform for starting a smooth transfer of some organisational features from EMS and its Western European member societies towards South Eastern European mathematical societies, and vice-versa.

EMS Executive Committee in Sofia
9th and 10th of July 2010

Report on the activity of the Applied Math. Committee

1) The proposal "Mathematics and Industry" prepared by the Committee on behalf of EMS and supported by the European Science Foundation is on the way.

Three Working Groups (on *Training and Careers* , *Academia-Industry Interfaces*, and *Opportunities and Challenges*) have prepared a "green paper" where "strategic objectives" and specific "policy recommendations" are presented. The document starts from the statement "…*development and progress of mathematics have always been driven both by* **internal forces** *(to cross the boundary) and by* **external forces** *(the need of solving problems arising outside the discipline). In the sequel we will often use, for sake of brevity, the term* **"industrial mathematics"** *to designate all the research that is oriented at the solution of problems posed by industrial applications: It cannot be considered as a field disjoint from the counterpart of a so-called* "**pure mathematics**", *since on one hand it uses potentially all fields of mathematics and, on the other hand, it is a continuous source of challenges to the fundamental research on structure and methods of mathematics because it has often to deal with completely new mathematical problems.*

Consequently, the policy recommendations concern the whole mathematics. In particular, the creation of an European Institute of Mathematics (as a *virtual* institute, but with adequate funding) is strongly recommended.

2) The project has also collected more than 100 success stories of cooperation between mathematicians and companies, and will distribute a booklet illustrating them. An online survey has received more than 600 answers (from mathematicians working in academia and in industry) and was an important source of information for the preparation of the green paper. Extended summaries of reports and studies that have been published in the last two decades on the same subject have been prepared and collected in another brochure.

3) The "Consensus Conference" of the project that was held in Madrid on April 26th and 27th and obtained the official logo of the Spanish presidency of EU. It was attended by more than one hundred participants; general talks were given by Alfredo Bermudez and Pierre Louis Lions (from the academic side) and by Adel Abbas (*Airbus*) , Philippe Ricoux *(Total)*, Jan Sijbrand (*NIBC*), and Javier Bullòn (*Ferroatlantica*) from the industrial side. The results of the general discussion were incorporated in a new version of the Report that has been circulated again in the mathematical community through the national societies, to stimulate some more comments and remarks in order to prepare its final version.

4) The "Final Conference" of the Forward Look will take place in Brussels on the 2nd of December. It has been included –thanks to Luc Lemaire – among the official events of the Belgian Presidency of the EU and will be attended by the European Commissioner for Industry (Antonio Tajani).

5) The Applied Mathematics Committee will meet in Paris on the 24th of September to discuss future activity and initiatives.

6) The panel discussion "Does Industry need Mathematics?" organised by the Committee was held at the Euroscience Open Forum (ESOF2010) in Torino, Italy (2-7 July 2010). The speakers were Magnus Fontes, Yvon Maday, Volker Mehrmann and Nevio Di Giusto (CEO of R&D Branch of FIAT).

7) EMS Schools in Applied Mathematics:
- Bedlewo (EMS Contact person: Helmut Neunzert): *"Industrial Mathematics"* October 11-18
The organizers ask the Eastern Europe Committee for supporting some participants coming from countries of Central and Eastern Europe:
- CIME (EMS Contact person: Maria Esteban): "*Topics in mathematical fluid dynamics*" September 6-11 in Cetraro, Italy.
- EMS School in Biomathematics in collaboration with ESMTB (EMS Contact person: Mats Gyllenberg): "*Mathematical Ecology and Evolution"* August 22-29 in Turku (Finland).

8) The Appl. Math. Comm. cooperates in the scientific organization of the meeting "Mathematics in Industry" Sofia 11th-14th July 2010.

Report about the activities of the Committee for Electronic Publishing of the EMS in 2009 and in first half of 2010:

Date 15.03.2010, updated and modified July 1, 2010 (see below under item 3).

1. The EuDML project has been successfully negotiated and the project has started. Here are further informations:

http://ec.europa.eu/information_society/apps/projects/factsheet/index.cfm?project_ref=250503

http://www.eudml.eu/

2. As it was mentioned in the previous report, the EPC had helped to prepare and had offered to give advice for the intended INFRA proposal of the EMS.

   However, no further involvement of the EPC was requested (except that apparently some text snippets authored by EPC members eventually have made their way into the proposal).

3. Thierry Bouche's invited talk on the DML 2009 in July 2009 (cf. http://www.fi.muni.cz/~sojka/dml-2009-program.html) seems to have opened some cooperation with JSTOR, but nothing more definite here.

3. Ulf Rehmann was contacted by Springer Verlag (apparently because he is chairing the EMS EPC): They want to update their Encyclopaedia of Mathematics (EoM) <http://eom.springer.de/> on a wikipedia kind of basis and with the help of the mathematical community.

They want to have the EoM content converted into a wiki format and want to give the EMS the full editorial control, including any updates that the community wants to add here. The current online EoM does contain ca. 8000 pages.

An unfortunate technical aspect is: The formulas included in the EoS pages are generated from tex and stored as (unflexible) pixel images on the server, but apparently the tex sources of these images are lost, so most formula stuff needs to be retyped. Copyright conditions will be as follows: Springer has to maintain the copyright on the old stuff (as they inherited that from the previous Russian owner), but all the new content will be under Creative Commons Attribution Share Alike License. All the content will be freely available on the web.

The EMS will (hopefully) have rights to set up mirrors of the electronic material (in order to distribute and to guarantee longevity of the material).

It is probably desirable to get support from the math community, and therefore help by EMS, CEIC and IMU at some point might be very welcome. (CEIC/IMU have been notified.)

A letter of intent about the cooperation of Springer and the EMS is expected to be signed this week.

Update on July 1, 2010:

The letter of intent has been signed, so the cooperation is active. However, according to a recent letter by Springer (dated June 16,2010), their software ist not yet ready for being actively used:

Quoting from the letter by Sprinter about their wiki software development:

 | "The site is currently being tested regarding the basic features
 | and sample data but this it too preliminary and so is still for
 | internal use only.

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|
|   The content arrived at the developer's two days ago. The basic spec
|   has been written and agreed upon and we have begun determining the
|   details for the conversion script, which will import the content
|   from xml into the wiki.
|
|   The next step is to take another sample set of articles for
|   conversion and then write a script to process the entire body of
|   content. After that, we will tend to any manual items left over
|   after the conversion. Then we will deal with things like design and
|   such. It is too early to give any sort of timeline".
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End of quote

   They say they will keep me informed about the progress.

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Last years's Report, dated 12.10.2009:

The main concern of the EPC in 2009 were various DML issues:

1. In Spring there was a "Preparatory Meeting Towards a European Virtual Library in
Mathematics" at Santiago de Compostela - Spain, 13-14th March 2009 at wich most
Committee members and many DML experts participated: http://www.usc.es/~esfmaths/.

2. On the occasion of an ESF meeting at Berlin, on June 15, 2009, there was a presentation of
a Forward Look proposal concerning the EVLM by Thierry Bouche, upon a suggestion at the
Santiago meeting.

3. In Summer, there was a workshop "Towards a Digital Mathematics Library July 8-9th, 2009,
Grand Bend, Ontario, Canada": http://www.fi.muni.cz/~sojka/dml-2009-program.html, with
similar participation as at the Santiago meeting.

4. In August, an EU-project concerning the EuDML has been accepted for support (1.6 Mill
Euro/2 years). It will be negiotiated by JosÈ Luis Borbinha and Thierry Bouche on October 21
at Luxembourg.

5. Meanwhile, the EU Infrastructure ca,, was released on Juli 30 (cf. http://cordis.europa.eu/fp7/
dc/index.cfm?fuseaction=UserSite.FP7DetailsCallPage&call_id=262)

Concerning the Forward Look ESF proposal, it was decided to follow the advice of the PESC
Standing Committee to integrate these efforts into the upcoming EC infrastructure proposal.

The committee is willing to give advice w.r. to an integration of DML issues into an EMS
infrastructure application.