

Creative Mathematics and Informatics: Celebrating 20 years of publication

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ABSTRACT. In order to mark the 20th anniversary of the journal which currently holds the name *Creative Mathematics and Informatics*, this note gives a brief account on the main chronological points and present some data to illustrate the evolution of its editorial policy and profile in the period 1991-2011.

1. INTRODUCTION

In 1990, after the fall of the communist rule in Romania, the Mathematics-Physics programme at University of Baia Mare, founded in 1961, has been re-established, after a decade of interruption (1980-1989).

In connection to the new academic demands, the scientific series of communications on exact and natural sciences (mathematics, physics, chemistry, biology, earth sciences) that appeared irregularly between 1961-1989 has been revived under the name *Buletinul Științific al Universității din Baia Mare. Seria B. Fascicola Matematică-Informatică*, currently named *Carpathian Journal of Mathematics*. This journal celebrated last year the 20th anniversary of publication of its new series, see [4].

It is now my duty and pleasure as Editor-in Chief of *Creative Mathematics and Informatics* to mark its 20th anniversary by giving a brief report on its evolution during this period.

I shall start by saying that, shortly after the beginning of the academic year 1991-1992, it became clear to me that an alternative journal, devoted to mathematical education, history of mathematics and interdisciplinary papers that involve mathematics or / and informatics, would answer to the new challenging didactic publication needs of the mathematics and informatics academic staff.

This idea came to me during the first semester of the academic year 1991-1992, in connection to the weekly Research Seminar I was organizing for the undergraduate students at the Mathematics-Physics programme. No one could imagine at that time the evolution of a local journal into an international one.

2. FIRST DECADE OF PUBLICATION: *Lucrările Seminarului de Creativitate Matematică*

At its foundation in 1991, the aim of the journal *Lucrările Seminarului de Creativitate Matematică* has been a pure didactic one. I quote from the Preface to its first volume, where the motivation (in Romanian language) for founding the journal is given, see [2]. "The Research Seminar on Mathematical Creativity (Seminarul de Creativitate Matematică) started its activity in the academic year 1991-1992, with the declared aim to attract university students towards the research activity. At its opening meeting from 13 November 1991, I presented the ways to achieve this important goal, designed especially for the

students in the programme Mathematics-Physics." Then there are presented six ways to accomplish this ambitious plan. Among them, I mention:

"6. The publication of the best communications presented during the regular meetings of the Seminar in a series named *Lucrările Seminarului de Creativitate Matematică* (Communications to the Research Seminar on Mathematical Creativity), to be published yearly, in one volume."

So, the first volume has been published in 1992 and included 12 papers authored by some of my colleagues in the Department of Mathematics and Computer Science (Vasile Berinde - 2 papers; Dan Bărbosu - 2 papers; Iulian Coroian, Gabriella Kovacs; Nicolae Oprea, Boris Petracovici, Lia Petracovici and Maria S. Pop), accompanied by two high school teachers (Gheorghe Boroica; Nicolae Muşuroia) and a high school student (Dana Botorce). At this stage the volumes were numbered after the academic and not calendar years: volume 1 (1991-1992), volume 2 (1992-1993) and so on...

The Editorial Board of the first three volumes consisted in only one person: the current Editor-in-Chief. Starting with volume 4 (1994-1995), the Editorial Board was already international and included, alongside the Editor-in-Chief (V. Berinde), the following members: Dan Bărbosu, Gabriella Kovacs and Maria S. Pop (all from University of Baia Mare), Francine Grandsard (Vrije Universiteit Brussel, Belgium) and Frederick W. Stevenson, University of Arizona, U.S.A.

The topics covered by the first volumes of *Lucrările Seminarului de Creativitate Matematică* were usually related to mathematics education, problem solving, history of mathematics, and interdisciplinary papers that involve mathematics or / and informatics, but several original research papers devoted to elementary mathematics (high school level) were also published, not necessarily presented to the meeting of the research Seminar.

The articles in the first 5 volumes were all written in Romanian, with an Abstract in English or French, placed at the end of the article, between the Bibliography and authors' address and affiliation. Moreover, each volume included alongside the Contents in Romanian (Cuprins), with the original titles of articles in Romanian, the Contents with all titles of articles translated in English.

Contributors were recruited at the beginning amongst the teachers and students from Baia Mare. As anticipated in the Editorial of volume 1, the second volume of the journal, that is, volume 2 (1992-1993), already published 4 articles written by four students at University of Baia Mare: Adina-Loredana Melniciuc, Monica Variu, Ana Otilia Stan, and Nicoleta Mada. The first two of them are now members of the academic staff of our Department.

The first contributor from abroad to *Lucrările Seminarului de Creativitate Matematică* has been Professor Constantin Corduneanu (University of Texas at Arlington, U.S.A.) with the paper *On the activity and achievements of the Romanian mathematicians abroad*, published in volume 3 (1993-1994).

The first paper written in a language different from Romanian was authored by Laszlo Maté from Technical University of Budapest: *A visual and constructive way to the contraction mapping theorem*, published in volume 5 (1995-1996).

Due to the inclusion of *Lucrările Seminarului de Creativitate Matematică* in the international mutual exchange programme of our Department, the journal had an international distribution starting with volume 6 (1996-1997). At the same moment, it started to be reviewed by *Zentralblatt für Didaktik der Mathematik*.

Here there are some other data on the evolution of the journal in the first decade of publication (1992-2001).

Year	Volume	Issues	Papers	Pages
1991-1992	1	1	12	138
1992-1993	2	1	18	178
1993-1994	3	1	14	144
1994-1995	4	1	20	158
1995-1996	5	1	22	142
1996-1997	6	1	12	128
1997-1998	7	1	17	144
1998-1999	8	1	19	162
1999-2000	9	1	23	184
2001	10	1	25	234
			182	1612

Table 1. Number of issues, papers and pages for the first 10 volumes of the journal *Lucr. Semin. Creativ. Mat.* (1992-2001)

The typographical quality of the issues increased constantly: while the first 7 volumes had a non-unique cover, starting with volume 8 (1998-1999) we adopted a unique cover, which has been designed, like in the case of the journal *Carpathian Journal of Mathematics*, by my youngest daughter, Ruxandra Berinde.

Starting with volume 9 (1999-2000), two members of the Editorial Board since volume 1 (1991-1992), Maria Sânziana Pop and Gabriella Kovacs, have been appointed as Deputy Editor-in-Chief, and Editorial Secretary, respectively. Next year, when editing volume 10 (2001), the Editorial Board has been significantly enlarged, to adapt to the increasing number of submissions. Some mathematicians and computer scientists joined the Editorial Board: Gh. Ardelean, L. Balog, O. Cosma, I. Coroian, Lidia Kozma, C. Mustăța, I. Păvăloiu, N. Pop, H. Sass, Ioana Tașcu, Ioana Zelina (all from University of Baia Mare), D. Andrica ("Babeș-Bolyai" University of Cluj-Napoca), C. P. Niculescu (University of Craiova). Starting with the same volume 10, as suggested by the Editorial Secretary, Gabriella Kovacs, the volumes were dated after the calendar year and not after the academic year, like the previous nine volumes.

In the anniversary volume 10 (2001), Gheorghe Ardelean has written a comprehensive Index grouping alphabetically after the authors all the articles published in the first decade of publication of the journal, see [1]. The technical editors of the journal were Marta Gae (for volumes 1, 2, 3) and Gabriela Hossu (for volumes 3-10).

3. SECOND DECADE OF PUBLICATION: ADOPTING THE CURRENT NAME

The second decade of life of *Lucrările Seminarului de Creativitate Matematică* was marked by publishing an increasing number of papers written in other languages than Romanian. For example, amongst the 22 articles published in vol. 11 (2002), six articles were written in English and one in French. Note also that in the same volume, an interview (with Rolf Jeltsch, President of European Mathematical Society at that time) has been published under the title *Looking to the Eastern European Mathematical Community*.

The constant international interest for our journal, consisting also in the increasing number of submissions having authors from abroad, suggested us to change the journal's original Romanian name, *Lucrările Seminarului de Creativitate Matematică*, by simply translating it into English. This happened in 2003, starting with volume 12. The name we adopted, *Creative Mathematics*, clearly expressed the editorial profile of the journal

during its first eleven years of publication. A note was put on the front cover: formerly *Lucrările Seminarului de Creativitate Matematică*, to remind the name hold by the journal during eleven years of publication. Accordingly, the cover has been also changed to the current beautiful one, by the courtesy of the same graphic designer, Ruxandra Berinde.

Simultaneously, in order to ensure an international audience, all published articles in volume 12 (2003) and the next ones are written in English.

The Editorial Board has been also renewed and enlarged on this occasion. The new members were Dumitru Acu ("Lucian Blaga" University of Sibiu, Romania), Jaroslav Cerny (Prague Technical University, Czech Republic), Sava Grozdev (Bulgarian Academy of Sciences, Sofia, Bulgaria), Michael Lambrou (University of Crete, Greece), Cristian Rusu (Pontificia Universidad Catolica de Valparaiso, Chile), Jaroslav Zhouf (Charles University, Prague, Czech Republic).

Year	Volume	Issues	Papers	Pages
2002	11	1	22	166
2003	12	1	16	128
2004	13	1	20	138
2005	14	1	20	142
2006	15	1	21	176
2007	16	1	22	166
2008	17	1,2,3	71	554
2009	18	1, 2	31	228
2010	19	1, 2	31	234
2011	20	1,2	29	208
			183	2150
Grand	Total	(1991-2011)	365	3762

Table 2. Number of issues, papers and pages for the last 10 published volumes of *Creative Mathematics and Informatics* (2002-2011)

It is worth mentioning that, starting with volume **15** (2006), the Editorial Secretary Gabriella Kovacs became the Managing Editor of the journal. She is the one who has to cope with much of the steadily increasing editorial work.

If we have a look to the Contents of volumes **12** (2003) and **13** (2004), we could have a clear idea on the editorial policy of the recently re-named journal. We can find there papers on problem solving (6 articles), mathematics education (3 articles), history of mathematics (2 articles), computer science (8 articles), mathematics research (7 articles), history and didactics of informatics (4 articles), and also several interdisciplinary articles (8 articles).

The affluence of submissions in the field of Computer Science in volumes 12-14, have convinced us to add the word *Informatics* in the title of the journal, to motivate their publication and to attract other articles. Therefore, starting with volume **15** (2006), the definitive (hopefully) name *Creative Mathematics and Informatics* has been adopted. This profile has been maintained in the next volumes but in the recent three years (2009-2011), the research papers in mathematics are however predominant.

Simultaneously with the last change of the name, we started to work on the electronic version of the journal. It is the merit of my colleague Ovidiu Cosma to design the first web site of *Creative Mathematics and Informatics*. At the very beginning we posted on the

journal's web site, <http://creative-mathematics.ubm.ro/>, only papers from recent issues, that were available in electronic format. Soon after that my colleagues Andrei Horvat-Marc and Cosmin Sabo started the huge work of scanning all old issues which are now almost all available electronically. Cosmin Sabo and Andrei Horvat-Marc form the web master team and are responsible for up-dating it periodically. Andrei Horvat-Marc also posted on the web site the journal's manuscripts template.

I also would like to express here my deep appreciation and thanks to the successive technical editors Gabriela Hossu and Marta Gae for the high typographical quality of the papers published in our journal in the last decade. Unfortunately, they are by now both retired but I do hope we'll be able to continue our cooperation and benefit from their experience in the coming years, like in the case of *Carpathian Journal of Mathematics*.

Some volumes published in the period 1991-2011 have been dedicated to certain important annual events. So, vol. 5 (1995-1996), has been dedicated to the Centenary of *Gazeta Matematică*, while vol. 6 (1996-1997), has been dedicated to the 35th anniversary of our university. Other volumes included selected papers communicated at our series of international conferences, ICAM: 12 (2003), 13 (2004), 17 (2008).

Last but not least, I want to stress on the fact that nowadays the journal *Creative Mathematics and Informatics* is fully indexed by two important data bases: *Mathematical Reviews*, starting with volume 15 (2006) and also in *Zentralblatt MATH*, starting with volume 14 (2005). One search in this database,

<http://www.zentralblatt-math.org/zbmath/>,

shows 140 articles reviewed from volumes published in the period 2004-2010.

In this context, I remind that some of the first volumes published in the first decade, due to their predominant didactic content, have also been reviewed by *Zentralblatt für Didaktik der Mathematik*, now the MathEduc database:

<http://www.zentralblatt-math.org/matheduc/>.

One search in the MathEduc database shows 135 articles reviewed from volumes published in the period 1992-2002, as follows: 13 articles from volume 2 (1992-1993); 10 articles from volume 3 (1993-1994); 14 articles from volume 4 (1994-1995); 12 articles from volume 5 (1995-1996); 8 articles from volume 6 (1996-1997); 17 articles from volume 7 (1997-1998); 17 articles from volume 8 (1998-1999); 9 articles from volume 9 (1999-2000); 19 articles from volume 11 (2001); and 16 articles from volume 12 (2002).

By summing up the entries in the two tables above, we can see that our journal reports a grand total of 365 articles and 3762 pages published in 20 years (Note that volume 21, containing selected papers communicated at the 7th International Conference on Applied Mathematics, 1-4 September 2010, is to be published in the coming days of 2011).

4. LOOKING TO THE FUTURE

Looking to the contribution *Creative Mathematics and Informatics* has made to the development of mathematics education, history of mathematics and interdisciplinary mathematics and informatics in our Department and university, I think I can be justifiably proud of founding this journal. Indeed, *Creative Mathematics and Informatics* has been a generous forum for both didactic and research papers in pure and applied mathematics and computer science for twenty years by now and hopefully will continue its mission in the coming decades.

Compared to what were the aims, editorial policy and profile 20 years ago, the actual editorial programme of our journal is rather different but obviously in a significant thematic and qualitative progress. One of the first concerns in 1992 and afterwards was that

there would never be enough good quality submissions to support the journal. Indeed, submissions were initially slow, and the early issues had been mainly fed by papers presented to the research seminar with the same name, and after the seminar was stopped, by papers presented to the anniversary conference organized in 1996, celebrating 35 years of existence of University of Baia Mare and other conferences or, simply, by normal submissions.

The current rather good number of submissions, most of them of high scientific quality, which lead to a rejection rate of 30-35%, is a clear proof of the journal's qualitative evolution.

Sitting here in my Editors chair, I am confidently looking to the future of our journal. My main concerns are related to the current challenges for the future development of the journal:

1) Increase subscriptions and make the journal financially independent (currently it is partly supported by Department of Mathematics and Computer Science, North University of Baia Mare and basically supported by SINUS Association). In this respect, we have introduced the Open Access option, that was already used by some authors in 2010 and 2011;

2) Design, test and introduce an on-line editorial submission system (similar to the existing editorial systems at commercial publishers, but simpler);

3) Setting up specific questionnaires to published authors, submission authors, targeted authors and international colleagues in order to find the breakdowns of the journal, in order to remove them and improve the profile and editorial administration of the journal;

4) Increasing the size of the journal by having constantly 3-4 issues / volume. Just now, we have three issues each two years, when hosting a special issue devoted to selected papers presented to our series of conferences ICAM (<http://icam.ubm.ro/>) and, this year, the additional issue dedicated to ICAM7 will be published as an autonomous volume, 21 (2011).

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