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M I S C E L L A N E A

Mathematicians and Computer Scientists of Romanian Extraction

Residing Outside Romania

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The Institute of Mathematics of Romanian Academy

Mathematics and Humanities: Irina Gorun

The Centenary of "GAZETA MATEMATICA"

Ciprian Foias (Norbert Wiener Prize of AMS and SIAM)

Personalia

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The following colleagues have changed their affiliation/address or they have recently left Romania, and we do not presently have their exact coordinates:

USA: M. Breban, Josefina Bondoc, Carina Parvulescu, Alexandru Stanculescu, Mark Sturza, Deonisie Trifan, Sandu Crivineanu, Mircea Ghitá, Dan Constantin Radulescu, Nick Nazari (Houston)  
Belgium: Radu Badesco  
Canada: Stefan Olariu  
France: Carmen Ieşan-Maftei  
Germany: Stefan Sandor, Christina Hartopecanu-Dobranis  
Israel: Enric Goldgahen, Andrei Ney

An ever growing number of young Romanian mathematicians are attending Graduate School in U.S. universities, their status being that of a foreign student. The same fact is true for European universities, where many Romanian students are attending Graduate School and sometimes even undergraduate classes.

## A.R.A. Congress 1994

The 19th Annual Congress of the American Romanian Academy of Arts and Sciences was organized at the "Smith College" in Northampton, Massachusetts, from November 3 - 6. The local organizer of the congress was Professor Emeritus Lory Wallfisch from the "Smith College", an enthusiast of George Enescu's Music, and a well-known pianist. The Congress was a joint venture of the A.R.A. and of "George Enescu Society" in the United States of America (Patron, Lord Yehudi Menuhin). A message from Lord Menuhin was read during the opening ceremony. The Congress was also viewed as a manifestation in the Commemorative Year "George Enescu". Due to the fact that Eugene Ionesco passed away in Paris in March of 1994, the Congress was also a Homage to Eugen Ionesco. Besides the participants from the United States, Canada and several Western European countries, there has been a considerable number of Romanian participants (from Romania). A large number of Sessions were scheduled in most branches of Science and Humanities, as well as in Technology and Medicine. Besides, a Concert including music by Enescu took place in the evening of November 3rd, with Maestro Mihai Brediceanu conductor and Lory Wallfisch and Sherban Lupu as soloists.

At the ARA Banquet and Award Ceremony, which took place in the evening of November 5, the following persons have been distinguished with various awards by the Academy: Professor Ion Paraschivoiu, the ARA Award for Science; Writer Alina Diaconu (Argentina), the ARA Award for Literature (mostly related to Eugen Ionesco); Violeta Dinescu, ARA Music Award; Keith Hitchins, the ARA Book Award; "George Enescu" Special Award to Lord Yehudi Menuhin and conductors Mihai Brediceanu and Sergiu Comissiona.

Among the participants there have been several with presentations in Mathematics or Computer Science. Two sessions of the congress have been dedicated to Computer Science and a single session was dedicated to Mathematics. Papers with strong mathematical background could be also found in the sessions dedicated to Technical Sciences.

The following colleagues have answered positively our request to submit an abstract of the paper presented at the congress:

CARMEN VLAD (Pace University, New York): Regular Measures, Outer Measures and Normal Lattices. The author is studying the above mentioned kind of measures, defined for the non-empty sets of a Lattice consisting of subsets of an arbitrary set  $X$ .

BOGDAN VERNESCU (jointly with R. Lipton): Homogenization of Two Phase Emulsions with Surface Tension Effects (Worcester Polytechnic Institute, Worcester, Massachusetts). The authors deal with an emulsion of two Stokes fluids, one of which is periodically distributed in the form of small spherical bubbles. One finds a new dual variational principle describing the effective viscosity and obtains bounds for energy dissipation rate for periodic anisotropic emulsions.

VIORREL VLAD (MTS and AT&T): Multilingual Software Applications in a Client/Server Architecture. The author starts from the remark that the need for global communication is ever growing. In this situation, the AT&T Network Systems aligned itself by developing new contacts and implementing new products all over the world. The main concern of the author is with the new Global Material Logistic System - (GMLS) - in order to provide network systems with a global material Tracking/visibility and marshalling system. Several strategic problems arise and their discussion is carefully considered.

CONSTANTIN CORDUNEANU (The University of Texas at Arlington): A Survey of Recent Results on Volterra Equations. The author is summarizing various existence results he has obtained jointly with his Ph.D. students, concerning equations involving abstract Volterra operators. Asymptotic behaviour of solutions of such equations is also investigated, particularly for second order functional differential equations.

FABIAN TODOR (Universite de Montreal): Sur les methodes numeriques appliquees aux modeles du risque. The author develops some numerical procedures to be used in the investigation of various risk models.

MICHAEL DEDIU & SOPHIA DEDIU (Dediu Research and Consulting, Tewksbury, Massachusetts): Artificial Intelligence, Music and Yehudi. The authors presented in two separate expositions some ideas from artificial intelligence which are related to music. Some of the ideas and means useful in investigation of music are: pattern recognition; speech processing; machine aided translation; neural networks; fuzzy logic; probabilistic interpretation. With such means one can build an expert system for recommending appropriate musical styles for improving productivity, health and working environment. Illustrations of filtering algorithms which allow to recognize Enescu's music and Menuhin's interpretation is provided. Various considerations are included concerning the relationship between Enescu and Menuhin.

Several other colleagues with interest in Mathematics or Computer Science have participated at the ARA Congress in Northampton. We mention Dr. Ileana Streinu (Mrs. Borcea) who is holding a position with the Smith College.

For the first time on American soil, we had the pleasure to see several participants from the Republic of Moldova.

The Institute of Mathematics of the Romanian Academy

During the last ten months, several letters and E-mail messages have reached the Editor of *Libertas Mathematica*, including a letter from the Director of the Institute Dr. Gheorghe Gussi. These letters contain ample description of the difficulties that the Institute has to overcome, not to mention the fact that by decision of the Council of Ministers of Romania (no. 69 from January 30, 1995) the Institute is dispossessed of its building, located on Calea Grivitei, no. 21 in the downtown area of Bucharest. More precisely, the Institute has never received back this property after the events of 1989. Presently, it occupies two floors only from what used to be its headquarters until 1975 (when by Ceausescu's direct order the Institute has been abolished). According to the information received from one of the former fellows of the Institute, who lives now abroad, the main reason the authorities have decided to transfer the building of the Institute to the Ministry of the Internal Affairs (the former patron of "Securitatea" and now of SRI), consists in the fact that the basement of the building is connected to the network of subterranean tunnels used by "Securitatea" during the events of December 1989. These tunnels have been visible on TV, during the turmoil created by the fall of the communist regime in Romania, in December 1989. It appears that the new political regime of Romania seems to be looking for finding new use of the network. If not, they should leave alone the Institute, for which this building has been erected in the late 1960 using Academy's proceeds. The Editor remembers that in 1969, when the Congress of Mathematicians of Latin Expression took place in Bucharest, one of the proud moments during the event was to show to our foreign colleagues the newly inaugurated building, on which wall several mathematical symbols and figures were placed. The attempt of the authorities to dislocate the Institute from its right place and provide instead a building which is not considered adequate by the members of the Institute, shows only in part the difficulties created to this group of devoted scholars by the authorities. Let's not forget that among the members of the Institute there have been Ciprian Foias, Dan Voiculescu, Corneliu Constantinescu and many more, who after years of harassment from the part of the communist regime have decided to expatriate themselves. Is the new political regime of Romania continuing the old policies of the infamous past?

As informed by fellows of the Institute whom I met while visiting Romania last Summer, as well as by those travelling abroad and reaching me by E-mail, the implementation of the decision of the Council of Ministers did not take place yet. We are urging the Romanian Government to renounce imposing more stress on the Institute's fellows, and let a valuable tradition in Romanian science progress.

MATHEMATICS AND THE HUMANITIES: Irina Gorun (1953–1985)

S. Marcus

I met for the first time Irina Gorun in the spring of 1972, when she was a student in the first year of the Faculty of Mathematics, University of Bucharest. The first impression, brilliantly confirmed in the subsequent years, has been that of a very intelligent and charming person, with a deep sense of humor and who is strongly involved in a double fiction: that of poetry and art, on the one hand, of mathematics, on the other hand. It became clear from the beginning that learning mathematics was for her a matter of personal motivation; she did it with passion and love, concomitantly with a similar attitude with respect to poetry. Then I learned that already as a highschool student, in Bucharest, she published various pieces of poetry in "Romania Literara" and "Luceafarul", the main Romanian literary journals at that time.

I am not the right person to evaluate her poetic work, although I like it as a reader. The evidence for the quality of her poetry is brought by various reactions of some of the best Romanian poets and literary critics. In 1971, when she was at the age of 18, she got the prize "Ienachita Vacarescu", as a result of a competition with a large number of participants, organized by the Faculty of Romanian Language and Literature, University of Bucharest. After her death in 1985, some of her pieces of poetry were published in the American Continent, in a volume entitled "Poezii", with a very relevant Preface by Matei Calinescu, Professor of Comparative Literature, Indiana University, Bloomington, a wellknown scholar in his field and one of the most appreciated literary criticist and researcher in Romania, in the seventh decade.

In 1979, Irina Gorun, after spending three years as a teacher in a marginal school, left Romania with her husband, Hari Bercovici, a renowned specialist in operator theory, now professor at Indiana University, Bloomington. After spending some time in Paris, she became, in the period 1980 -1982, a student in computer science at the University of Michigan. In late 1982, she is a research associate of the Laboratory of Computer Science, MIT, and a PhD student of Professor Albert Meyer; under his guidance, she prepared a thesis in lambda- calculus; at the moment of her death, this thesis was practically accomplished, ready to be presented. At the Conference "Logic of Programs" (Brooklyn, June 17- 19, 1985), Professor Albert Meyer presented some fragments of Irina's work (published in the Proceedings of the Conference, see (8)).

Irina Gorun begun very early, already as a student, her research activity, because for her "learning mathematics" was equivalent with "doing mathematics". She developed her research work in several fields: automata and formal languages ( (4), (7) ), mathematical poetics ( (3), (6) ), applications of generative grammars to the study of theatrical plays (5) and lambda - calculus (8) (this is approximately their chronological order).

In the field of automata and formal languages, she investigated a hierarchy of context sensitive languages, introduced by Lin and Weiner (9). It is known that the intersection of two context free languages may be non-context free, but it is always context sensitive. The class  $L_n$  of intersections of  $n$  context free languages is such that, for any  $n$ ,  $L_n$  is strictly contained in  $L_{n+1}$  (9). This is true also for  $n=0$ , if by  $L_0$  we mean the class of regular languages. The union  $L^*$  of the languages  $L_n$  for  $n=0,1,2,\dots$  is strictly contained in the family of languages accepted by linear bounded deterministic automata (Gorun (4)). The language  $L^*$  is the main concern in (4). In (7), Gorun investigates the Darboux properties (in the sense of (10)) of the hierarchy of intersections of context free languages. She proves that for each  $n$  larger than zero there exists a language in  $L_n$  that is not in  $L_{n-1}$  and that has the weak left and the weak right Darboux properties (in the sense of (10)). She gives then conditions for a bounded language to have a regular infinite sublanguage (condition expressed in terms of semilinearity and periodicity). She obtains the interesting result following which any bounded language from  $L^*$  is a slip language, i.e., its image under the Parikh function is a semilinear set. By means of this result, Gorun obtains an example of a bounded matrix language which is not in  $L^*$ .

In the field of lambda - calculus, Gorun's work is motivated by the problem of determining when two typed recursive declarations are provably equivalent. She considers the finitely typed lambda - calculus, with "fixed-point" combinators  $Y_s$  of each type  $(s \rightarrow s)$  arrow  $s$  satisfying the equation  $Y = \lambda f: s \rightarrow s . f(Yf)$ . This formal system models computations with recursively defined equations. A procedure is presented for deciding when a lambda-Y-term is "unsolvable"; this implies decidability of equations between lambda-Y-terms and lambda-terms without  $Y$ 's. Tight characterisations of unsolvable terms under certain syntactic constraints are also obtained.

In the field of mathematical poetics, her starting point is the work of Fischer (1),(2), based on the idea to use simplicial complexes and homological algebra in the study of texts. This permits to take profit from the stylistic theory following which the phenomenon of repetition is central in poetry, when it is seen not only under its quantitative aspect, but also under its qualitative, structural aspect (i.e., to look not only for frequencies and probabilities, but also for the structure of the repetition rules and their levels of relevance). With respect to the work done by Fischer, Gorun goes much farther. She gives first an explicit status to all mathematical ideas to be used in the study of poetry, explaining the exact connection between each formal entity and the poetic structure of repetition; so, the basic concepts of homological algebra are revisited with motivation inspired by poetry. The mathematical tool no longer appears as brought from a foreign territory, it arises naturally from the internal world of poetry.

Gorun investigates successively the topological structure involved in a text, the topological invariants, the stylistic characteristics. The data related to the nerve of a text give a more refined image of the connectedness structure of a text than what a direct observation may give; the dimension of a simplicial complex indicates the degree of connection of the text. One can then investigate the group of repetitions associated to a text. The Betti number of order zero indicates the linear connection. One explores a measure of the speed of appearance of a  $q$ -simplex or the speed of decomposition in  $2,3,4,\dots,n$  components. Then, a

first application to a piece of Romanian folkloric poetry (Jianul) is given and one can see here the care to consider the stylistic relevance of the parameters selected for analysis. Other interesting examples are related to some fragments of French folkloric poetry ("La rose et le rosier" and "Jardin d'amour"). Here, Gorun shows once more her excellence in relating mathematics to poetry. Expressing repetitive structures in a geometric language leads to some images that are not captured by traditional geometry. The mathematical tool giving here an adequate representation is homological algebra, whose structures bring, by their both specificity and generality, a large field of interpretations. Selecting with poetic feeling various levels of analysis ( words, verses, rhymic structures ) and associating them with the geometric representations of their repetitive structures, Gorun shows how one can detect a structural parallelism between linguistic and poetic levels that, at a first glance, could not be compared. These analyses remain among the best and most convincing examples one could provide in order to show how text analysis can be illuminated by non-trivial mathematics.

Another masterpiece of mathematical modeling in the field of humanities is the work done by Gorun in the analysis of theatrical plays. Her approach is based on the use of generative formal grammars as devices expressing the theatrical competence under the form of some machines based on recursive rules. The theatrical work becomes in this way potentially infinite. This idea is realized by Gorun not by a simple transfer of generative grammars into the field of theatre; Gorun never APPLIES mathematics in humanities, she DISCOVERS within the framework of humanities the processes leading in an unavoidable way to the necessary mathematical formalism. In the case of theatre, we could say that Gorun reinvents the generative grammars via Sophocles' tragedies Ajax, Oedipus Tyrannus, Electra and Antigone.

Ten years after her tragic death, Gorun's work deserves in continuation the attention of specialists, while her human and intellectual profile remains alive for all those who knew her. French folkloric poetry grammars via Sophocles' tragedies Ajax, Oedipus Tyrannus, Electra and Antigone.

The results obtained by Gorun in the field of formal grammars are answers to very natural and precise problems and they cannot be eluded in subsequent syntheses in the field. A recent synthesis about intersections of context free languages (11), having as one of its authors a very known name in mathematical linguistics, Professor Robert Wall, from the University of Texas at Austin, sends twice to the Gorun's article (4). Gorun's articles of mathematical poetics and strategy of characters in drama show a rare capacity to articulate poetic and mathematical aspects and remain pieces of reference in the field; they should be republished in more visible journals.

Ten years after her tragic death, Irina Gorun's work deserves in continuation the attention of specialists, while her human and intellectual profile remains alive for all those who knew her.

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## The Centenary of "GAZETA MATEMATICA": 1895-1995

On September 1895, a group of ten engineers and mathematicians from Bucharest decided to start the publication of "Gazeta Matematica" on a monthly basis. It is a miracle that this publication has continued to appear regularly for 100 years, despite the difficulties during the First and Second WW. For a few years after the communist took over of Romania, the publication has appeared under the name "Gazeta Matematica si Fizica, Seria A". There has been also a similar publication, Seria B, which addressed particularly students of High Schools. Both series of "Gazeta Matematica" are now published by the Society of Mathematical Sciences of Romania.

The first issue of "Gazeta Matematica" contains a text that stipulates the role of the new publication. This is a citation from that text: "The aim of this publication is the insertion of original papers in Mathematics, and the development of the taste for the study of this Science. Besides the original papers, each issue of the "Gazeta" will contain a group of problems proposed to its readers and will publish the solutions received. Solving problems is one of the best stimulants for attracting people towards the study of Mathematics. Several of us are indebted to the publication "Recreatii Stiintifice" which has been published in Iasi for a period of six years, for the interest in Mathematics. We are trying to continue this publication".

The ten founders of "Gazeta Matematica" have been Victor Balaban, Vasile Cristescu, Ion Ionescu, Mihail Roco, Ion Zottu, Emanoil Davidescu, Mauriciu Kinbaum, Nicolae Nicolescu, Tancred Constantinescu and Andrei Ioachimescu. Most of them were holding teaching positions at the newly created "Scoala Nationala de Poduri si Sosele" - the first Romanian Institution of higher technical learning (it became later "Scoala Politehnica", then "Institutul Politehnic" and finally "Universitatea Tehnica" from Bucharest).

Among the founders, a special position has been obtained by three most active fellows: Vasile Cristescu, Andrei Ioachimescu and Ion Ionescu. Their group was joined by Gheorghe Ţiţeica, who later became a Professor of the University of Bucharest and held many high offices (such as Vice-President of the International Mathematical Union). These four fellows constituted what was called "The Pillars of Gazeta Matematica". The whole activity developed at "Gazeta Matematica" during the period 1895 - 1909 was dominated by this group of four.

From the very beginning, the "Gazeta Matematica" has attracted the interest of many categories of readers and collaborators. First, the high school students, particularly from the upper division. They were the problem solvers and the participants to the competitions organized each year (starting in 1902) for those who distinguished in this

kind of activities. Second, the college students who also participated as problem solvers. Most students in this category were Engineering students. Third, the teachers of Mathematics from the high schools. Fourth, college professors from the universities and politechnics. An illustrious example in this category was one of the "pillars", Gheorghe Țițeica. Finally, many other categories of collaborators and supporters of "Gazeta Matematica" were provided by the military (technical branches), statisticians, actuaries and simply admirers (donors).

The popularity of "Gazeta Matematica" has spread around the whole country, and the supporters could pride themselves with a new achievement in the year 1935: a new building was erected on Calea Grivitei, to serve as headquarters premises. This was an adequate building, which has been used by "Gazeta Matematica" for almost two decades. It has been finally confiscated by the communist regime installed in Romania after the second WW. The "Gazeta" was moved in a two room suite at the University of Bucharest, which was itself a crowded place.

The main contribution brought by "Gazeta Matematica" and its supporters in the first century of its existence could be briefly characterized by the following facts:

- 1) The publication of a regular source of inspiration and stimulation for a large number of persons, interested in Mathematics and its applications.
- 2) The publication of a series of books written by authoritative authors, dealing with all mathematical subjects interesting the students and teachers; these books - mostly collection of problems - have served many generations for preparing their entrance examinations in the establishments of higher education.
- 3) The organization of the competitions for high school students, an action which contributed substantially to attract the most gifted persons towards the study of Mathematics and its applications.
- 4) The creation and maintenance of an atmosphere conducive to competition, achievement and excellence in the field of Mathematics.
- 5) At the proposal of then Secretary General of the Mathematical Society of Romania (which is now publishing "Gazeta Matematica"), the International Mathematical Olympiads have been organized. At the last IMO organized in Canada, the Romanian team has occupied the second place.

The influence exerted by "Gazeta Matematica" during its first century of existence is very difficult to be estimated. During this first century many obstacles had to be overcome. By far, the most difficult period was during the years following the second WW, when the whole cultural life in Romania has been seriously shaken by the communist regime. Many devoted collaborators of "Gazeta Matematica" have been thrown in jails or "marginalized". Yet, new devotees have been found and the "Gazeta" was saved, unlike many institutions of cultural importance which have disappeared.

Note. This article is an abridged version of a material by G. Bantaș and M. Turinici.

## CIPRIAN FOIAS

has been awarded the Norbert Wiener Prize of the American Mathematical Society and the Society of Industrial and Applied Mathematics, for basic contributions to Operator Theory, Analysis and Dynamics and their applications in pure and applied Mathematics. The award Ceremony took place in occasion of the annual meeting of the societies, held in January 1995 at San Francisco Hilton.

Professor Hermann Flaschka from the University of Arizona (Tucson) is also a recipient of the Norbert Wiener Prize (1995).

From the Citation: "Ciprian Foias's basic contributions ..... had a large impact in pure and applied mathematics. His fundamental investigations include important contributions to dilation and interpolation theory, skew Toeplitz operators, and dynamical systems methods in partial differential equations. The applications are both deep and remarkably broad-ranging, including control theory, geophysical signal processing, Ramsey equilibria in economics, statistical solutions of the Navier-Stokes equations, and dimension estimates for attractors in fluid dynamics".

In his response, Ciprian Foias has expressed his thanks to the societies and to the Norbert Wiener Prize Committee. He has also added: "Most of the work referred to in the citation was done in collaboration. Therefore, I share, at least in spirit, this award with my collaborators, among whom I cite B. Sz. Nagy, H. Bercovici, A. E. Frahzo, A. Tannenbaum, G. Zames (applied operator theory), G. Prodi, P. Constantin, O. P. Manley, G. Sell and R. Temam (dynamical systems in partial differential equations), and R. E. Baker (mathematical economics)".

A biographical sketch and the photograph of Ciprian Foias is included in the issue Number 4 (April) of the Notices of the American Mathematical Society.

The sketch also mentions the fact that Ciprian Foias is a member of the American Association for the Advancement of Science since 1987, and a honorary member of the Hungarian Academy of Science (1993) and the Romanian Academy (1994).

A short presentation of Ciprian Foias work until 1983, when he was 50 years old, is contained in the volume III of Libertas Mathematica.

More extensively, his life and activity are presented in the Indiana Mathematical Journal (1993), in a volume dedicated to his 60th Birthday.

On behalf of the Romanian mathematicians in Diaspora, we congratulate Ciprian Foias for the receipt of this prestigious prize.

## P E R S O N A L I A

Professor Nicolae Dinculeanu from the University of Florida in Gainesville is seventy years old this year. He has been affiliated in Romania with the University of Bucharest and with the Mathematical Institute of the Romanian Academy (whose deputy director he was in the early 1970's). His books "Vector Measures" and "Integration on Locally Compact Spaces" have had several editions and are among the basic references in the field. Since 1976, Professor Dinculeanu is with the University of Florida, where he guided several young mathematicians and has continued his research activities with vigor. The Romanian mathematicians in Diaspora congratulate him on this Anniversary.

Professor Dan Pascali is sixty years old this year. He has been associated in Romania with the Mathematical Institute of the Romanian Academy, where his position was of Senior Researcher. His main preoccupations are in the area of Nonlinear Functional Analysis, with particular interest in the theory of monotone operators. Lately, he has been appointed a Professor of Mathematics at the "Ovidius" University in Constantza, Romania. He is commuting between New York and Constantza. Dan Pascali has authored a book on Monotone Operators (Jointly with Silviu Sburlan). In his Ph.D. thesis (1964) he introduced the concept of generalized analytic vectors. Researchers have called this concept "Pascali System". He was an assiduous collaborator at Libertas Mathematica. We congratulate him on his Anniversary.

Dr. Dan Tiba from the Institute of Mathematics of the Romanian Academy, with interest in Control Theory, has taught in the Fifth International Summer School held at the University of Jyväskylä in Finland. He has also participated at various conferences on control in the United States of America, and visited Ohio University where he spoke on his research results.

Professor Adrian Ocneanu from the Pennsylvania State University has been the recipient of the research award of the American Romanian Academy of Arts and Sciences.

Professor Viorel Barbu from the University of Iași, Romania, held a position of Visiting Professor at the Ohio University, Athens, Ohio, from January to June, 1995.

Professor Constantin Corduneanu from the University of Texas at Arlington attended the Second Marrakech Conference on Differential Equations and the ICIAM- 1995 in Hamburg, Germany. He presented results recently obtained in the theory of equations with abstract Volterra operators. He has also visited his "Alma Mater" - the University of Iași, where he presented aspects of the retirement in the U.S. Academe.

Dr. Constantin Teleman, a fresh Ph.D. from Harvard University, has obtained a NSF post-doctoral fellowship. He will benefit from it at Stanford University.

An impressive number of mathematicians and engineers (researchers) from Romania have participated at the ICIAM-1995 in Hamburg, Germany. We are mentioning Prof. Vlad Ionescu from Bucharest Technical University, Prof. Gheorghe Micula from the University of Cluj-Napoca, Dr. G. Valusescu from the Institute of Mathematics of the Romanian Academy (Bucharest), Professor Florin Poterasu from the Technical University of Iași.

Mr. Florin Smarandache, presently teaching at one of the Community Colleges in Tucson area (AZ), has developed a systematic literary activity. We have mentioned several of his literary productions in past volumes of Libertas Mathematica. This time we get the opportunity to mention his successes as a playwright. One of his production, whose title loosely translated would be "The animals homeland", was included in the repertoire of the State Theatre of Smolensk (Russia), and presented during the Festival of Contemporary Dramaturgy held in that city at the end of 1994. A group of colleagues from Craiova University have started the publication of the "Bulletin of Number Theory", mostly inspired by research work on what has been called "Smarandache Function". The editor of Libertas Mathematica has received many other items attesting the activities of the Craiova Group in Number Theory, or publications dedicated to the literary activity of Florentin Smarandache. One of the items is the brochure "Paradoxism's main roots" by Florin Vasiliu, and published in 1994 in Phoenix, Arizona. We congratulate Florentin Smarandache for his varied activities and achievements.

Professor Nicolae H. Pavel, from the Ohio University, Athens, Ohio, has visited Romania during the Summer of 1995. He spent part of the time at his "Alma Mater", the University of Iași. He lectured on his latest research work.

Prof. Radu Miron with the University of Iași has participated in July 1995 at an international meeting on Differential Geometry, held in Seattle, WA.

Mr. Mihaly Bencze from Brașov, Romania, has sent to the editor of Libertas Mathematica several issues of the periodical publication "Octogon". This publication is inserting mathematical problems proposed for solution and short articles dealing with topics of interest for Mathematics Teachers in High Schools.

Professor Nicolae Cristescu, a member of the Romanian Academy, is now on a permanent position at the University of Florida (Department of Mechanical Engineering).

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