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LIBERTAS MATHEMATICA , VOL. 3 , 1983

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Editor's Note

The above list has been compiled by using information contained in various membership lists , in mathematical or related publications where the affiliation of the authors is specified , or information conveyed by some of our colleagues . We are particularly indebted to Corneliu Constantinescu , Dan Pascali and Vladimir Protopopescu for their cooperation . In order to keep-up with further changes , and update the list accordingly , we kindly ask the cooperation of our colleagues .

PROFESSOR OCTAV ONICESCU PASSED AWAY

A few days before this volume of Libertas Mathematica was scheduled to be taken to the printers , we learnt from B.I.R.E. (Paris , France) about the death of Professor Emeritus Octav ONICESCU , a member of the Romanian Academy . Octav Onicescu was the founder of the Romanian School of research in the fields of Probability and Mathematical Statistics . He was 91 years old , and o former professor of many generation of Romanian mathematicians . His death is deeply regreted by all members of the Romanian Mathematical Community (both in the country , and in exile) . Libertas Mathematica will insert adequate materials concerning the life and activity of Octav Onicescu in one of the forthcoming volumes .

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Note. Most of the names and addresses listed above have been communicated to the editor by Dr. Vladimir Protopopescu . We take the opportunity to thank him for cooperation .

According to information gathered by Dr. Protopopescu , the following physicists of Romanian extraction would be now working outside Romania : Tudor Bunaciu, Mariela Sahini , Toma Vescan and Ioana Ciulli .

In Memoriam

ILIE POPA , 1907-1983

The last month of July passed away in Iaşi (Jassy) Professor Ilie Popa , who served the University of Iaşi and the Romanian Educational Community for more than four decades .

Ilie Popa was born in Iaşi on July 20 , 1907 , and in that city he attended the elementary school , the high school and the university . He graduated in 1927 from the "Costache Negruzzi" Lyceum (Liceul Internat) , where Ion Raianu - a well known author of mathematical textbooks in Romania - taught him Mathematics . Ilie Popa has shown particular interest to this subject , and as a result of his achievements during the high school years , he decided to embark for a career in Mathematics . In the Fall of 1927 , Ilie Popa became a student with the Faculty of Science at the University of Iaşi , choosing Mathematics as his major field .

At that time , the mathematical studies at the University of Iaşi were organized within "Seminarul Matematic al Universitaţii din Iaşi" - a unit of research and teaching (to use the nowadays terminology) headed by Professor Alexandru Myller , a former student of Felix Klein , David Hilbert and Herbert Minkowski in Goettingen . Besides Professor Myller , other faculty included Mrs. Vera Myller (Lebedeff) , who also passed her Ph. D. in Goettingen (with Hilbert) , Alexandru Sanielevici (a student of Goursat) , Constantin Popovici and Octav Mayer . The young Ilie Popa , very likely impressed by the records of his future teachers , started with full dedication a career that spans on a half century .

Ilie Popa graduated from the University of Iaşi in 1931 , and has been appointed an "Assistant" to the Seminarul Matematic with the University of Iaşi the same year . He immediately started working on a Ph. D. in Mathematics , under the guidance of Alexandru Myller and Octav Mayer . He started publishing research papers in 1932 , and in 1934 he defended his Ph. D. thesis dedicated to a topic in Differential Geometry (the major field of investigation for most faculty members with the Seminarul Matematic) . The title of his thesis was "Contributions to the centro-affine differential geometry" , and has been inspired by the research conducted by both Myller and Mayer , at that time .

From 1936 to 1938 , Ilie Popa - as a recipient of a post-doctoral fellowship of the Romanian Academy - travels abroad and spends time in Rome and Hamburg . In Rome , Ilie Popa is attached to the group of mathematicians working in Differential Geometry under the leadership of Enrico Bompiani . During his period in Rome , Ilie Popa establishes a friendship with Beniamino Segre . In Hamburg he is mainly interested in the research work conducted by Wilhelm Blaschke . It is quite probable that Popa's interest in some problems of global Geometry has originated during the period spent in Hamburg .

After his return to Romania , Ilie Popa continued his activities with the University of Iaşi , holding various positions : in 1937 , while abroad , he has been promoted to Associate Professor ; he has been tenured on that position in 1940 , and in 1942 he became a Professor of Differential and Integral Calculus at the Politechnic (Technical University) of Iaşi . The same year , Ilie Popa obtains the transfer (granted by the Department of National Education) from the Iaşi Politech- to the University of Iaşi .

In 1948 , as a result of reorganization of the Romanian Educational System , a chair of Mathematical Analysis is created within the Faculty of Sciences at the University of Iaşi . Ilie Popa has been appointed as head of this chair , a position he has held until his retirement in 1973 . He continued his activities at the University until 1977 , acting as a consulting specialist , a Ph. D. advisor , and taking part - in his capacity of Emeritus Professor - to various academic activities .

During his career at the University of Iaşi , Ilie Popa has taught many subjects , but he was primarily concerned with Mathematical Analysis - in the broad sense of this term . We do not possess now a full list of courses and seminars in which Ilie Popa had the leading role . The author of this paper was a student of Professor Ilie Popa from 1947 to 1950 , a member of the chair headed by him from 1950 to 1953, and then a Ph. D. student from 1954 to 1956 . The author has taken the following courses (as an undergraduate student) with Ilie Popa :Mathematical Analysis - a one year course meeting 4½ hours a week , supplemented by 4½ hours weekly of exercise solving (under the guidance of an Assistant) ; Complementary Topics in Mathematical Analysis - a four hours per week , one year course . The course on Selected Topics has been dedicated (that academic year) to : Calculus of Variations ; Trigonometric Series ; Partial Differential Equations .

Ilie Popa was an excellent teacher , a person of great pedagogical talent who loved the student , the subject taught , and who immensely enjoyed conveying

mathematical knowledge . He possessed a strong geometric intuition , which he successfully used in teaching Mathematical Analysis .

Ilie Popa was active in research for almost half a century . His complete list of publications includes almost one hundred items and it emphasizes the following main directions : Differential Geometry ; Mathematical Analysis ; History of Mathematics (with particular regard to Romania).

In the field of Differential Geometry , Ilie Popa has published more than 40 papers , including several joint papers with Alexandru Myller , Mendel Haimovici, Gheorghe Gheorghiev - all of them being associated with the Seminarul Matematic of the University of Iaşi . The results obtained by Ilie Popa in this field of research , intensely cultivated by the members of Seminarul Matematic in Iaşi , have been known to many researchers dedicated to Differential Geometry . To the best of our knowledge , and relying on sources providing only partial information in this regard , at least the following mathematicians have used results obtained by Ilie Popa : W. Haake , Beniamino Segre , S. Finikov , Gerit Bohl , N. I. Kovantzov , Lucien Godeaux , Otakar Boruvka , Decuyper , A. Mateyev .

Besides research interest in classical differential geometry , with main regard to projective or affine differential geometry , Ilie Popa has been concerned with some problems in global geometry . Making use of methods of Real Analysis , he has obtained remarkable results related to the properties of convex curves or surfaces , continuing and improving various contributions to this field due to various mathematicians (Frechet , Hayward , Holdich , Bottema and Meissner).

Partly motivated by his interest in global geometry , Ilie Popa dealt with several problems in Real Analysis (including differential equations) , among them being the problem of finding conditions for a real valued function to be nonmeasurable in the Lebesgue sense .

A great deal of research work has been devoted by Ilie Popa to various problems pertaining to the History of Mathematics . He has published more than 30 papers in this field , and since most of them appeared in journals which are not necessarily mathematical , it seems rather difficult to list all of them . One of the subjects that captivated the attention of Ilie Popa was the History of Mathematics in Romania . In several cases , Ilie Popa detected the source of the first mathematical textbooks with circulation in Romanian countries . For instance , the first book on Arithmetic published in Moldavia was authored by the Metropolitan Amphilohie of Hotin (Khotin) . Published in Iaşi in 1795 , this Arithmetic book

had an Italian Arithmetic as a model , but Amphilohie made various improvements and adapted it to the level requested by the Romanian users at that time . The contribution of Amphilohie in regard to the creation of the Romanian scientific terminology is singled out .

Perhaps , the most significant contribution made by Ilie Popa to the History of Romanian Mathematics is related to the beginnings of the original research in this field . Due to Ilie Popa , the contribution of Dimitrie Asachi (the son of Gheorghe Asachi - the founder of the modern educational system in Moldavia) , as well as that of N. Botesu (Botez) , are thoroughly discussed , and these authors won the place they deserve in Romanian Mathematics .

In good connection with his research in the History of Mathematics , we take the opportunity to emphasize the interest Ilie Popa has always shown to the vulgarization of mathematical topics among various categories of readers . Together with Alexandru Myller , he authored a textbook of Analytic Geometry addressed primarily to the high school students before entering college . He has published in Gazeta Matematica several articles on topics pertaining to elementary mathematics , and how they should be taught in class . In a series of publications like "Natura", "Revista Adamachi" , "Atheneum" or "Gazeta Matematica" , Ilie Popa authored a series of articles that addressed the non-mathematician reader .

During his career that embraced more than 40 years , Ilie Popa had to fulfil many tasks in the academic community . Besides his duties as the head of the chair of Mathematical Analysis , Ilie Popa had to serve twice as a Vice-Rector of the University of Iaşi . He has been for a decade the Rector (President) of the Institute for Teachers Training in Iaşi , a unit of higher education that was independent with respect to the University of Iaşi . During the three-year period 1961 - 1964 , Ilie Popa served as General Director for high school education - a position within the Department of Education in Bucharest .

A special mention deserves the task Ilie Popa had to fulfil for almost a decade , as the Director of the Seminarul Matematic at the University of Iaşi . He succeeded to Alexandru Myller in this position (which was never a budgetary one) , and held it during the most difficult years following the second World War . The main duty consisted in caring for the library which Myller founded at the same time with the Seminarul Matematic , and which provided the necessary basis for decent research activities in the field of Mathematics .

During the period of his Directorship , the Seminarul Matematic reestablished all the exchange agreements with hundreds of institutions abroad , and found new ways to distribute its publication "Analele Ştiinţifice ale Universitaţii din Iaşi" Series "Matematica" (also known with title in French , Annales Scientifiques de l'Université de Jassy ; first year of publication , 1900) . In order to cope with the financial hardship , each member of Seminarul Matematic agreed to donate to their institution any royalties from books , and any compensation received as members of various boards of examiners , etc. In 1948 , the publication which served in the exchange programs has been abolished by the government . Nowadays , almost four decades past those difficult years , the library of the Seminarul Matematic is still neglected by the Romanian authorities being practically deprived of the necessary subsidies to keep up its collections of journals , that in most cases start with the first volume of each journal .

Among the students Professor Ilie Popa had under his guidance during their first years of the mathematical career , we will mention Nicolae Negoescu , Olga Costinescu , Neculai Gheorghiu , Gheorghe Bantaş , all with the University of Iaşi . There are many more students in the younger generations .

Professor Ilie Popa is survived by his son , Eugen Popa , currently an Assistant Professor of Mathematics with the University of Iaşi .

During the last years of his life , Professor Popa was a member of the American Mathematical Society .

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Remark

Unfortunately , we are presently unable to list most of the publications of Ilie Popa dedicated to the History of Mathematics . They are disseminated in various periodicals , proceedings of meetings , volumes dedicated to academic events etc. We take only the opportunity to mention a conspicuous paper included in one of the volumes published in occasion of the centenial of the University of Iași : "Contributions to the history of the University of Iași , 1860 - 1960". The contribution of Ilie Popa regards the Mathematics at the University of Iași , during the period under consideration .

Constantin Corduneanu

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PROFESSOR RADU ROŞCA-ROCHAS
IS VISITING AGAIN THE UNITED STATES

Professor Radu Roşca , who has settled in Paris-France after leaving Romania , is visiting for the second time the United States in less than one year . This second time he is a Visiting Professor with the New Jersey Institute of Technology in Newark , N.J. , and will teach during the 1983 Fall semester at that institution . He will give invited talks at a few other schools in the USA .

First visit Professor Radu Roşca made to the United States was initiated by the invitations of the Departments of Mathematics at the University of Texas at Arlington , and at the University of North Carolina in Charlotte .

Professor Roşca received his Ph. D. degree in 1939 in Paris , having Élie Cartan as supervisor . During his mathematical career which already covers more than four decades , dramatically interrupted for fourteen years by his detention in what he calls the "Romanian Gulag" , Professor Roşca has authored over one hundred research papers , including four monographs dedicated to various topics in *Differential Geometry* .

His first visit to the United States took place in the first part of October 1982 , and besides the inviting institutions it has been sponsored by the Frenh Government , as an action motivated by the program of scientific and cultural exchanges between France and the United States . Professor Roşca gave several talks on mathematical subjects , including the theory of Sasakian manifolds in which he conducted research during the past few years .

Besides the mathematical activities developed during his (first) short stay in the United States , Professor Roşca found the necessary time and resources to comply with the invitation of the "Center for Soviet and East European Studies " of the University of Texas at Arlington and speak to a nonmathematical audience about his experience in the Romanian prisons and concentration camps . On October 5 , 1982 , at 7:30 p.m. , in one of the large auditoriums of the University of Texas at Arlington , Professor Roşca presented his conference "Fourteen Years in the Romanian Gulag " . In addressing the public at the University of Texas at

Arlington on similar themes , Professor Roşca has been preceeded by Ginzburg and Sinjavski - two well known Soviet protesters .

Professor C.Corduneanu introduced Professor Roşca to the audience . He emphasized the fact that Professor Roşca is the descendent of a family which counts among its members some of the founders of modern Romania (Brătianu),former Prime-ministers of Romania , a historian like George Brătianu , several generations of statesmen . His stepfather I.G.Duca was a Prime-minister of Romania when assasinated by members of a rightist movement , a few years before WW II . After the WW II , Professor Roşca's family - to which the democratic traditions of the country owe so much - lost several of his members in the Gulag . Most fortunate than some of his relatives , Professor Roşca survived the horrors of the Gulag , and is now the citizen of a democratic country . Unfortunately , this is not his native country .

Following are a few excerpts from the conference given by Professor Roşca at at the University of Texas at Arlington .

"The reeducation was performed in several stages . First of all , you had to denounce your parents , your brothers and sisters , as being enemies of the people. Then you had to declare your mother and sisters were fast women . Afterwards , you were obliged to denounce and thrash your best friend in the cell . One of the students who has refused to perform this dirty mission , has been killed after some abominable tortures" .

"During the WW II I signed an anti-fascist memorandum , and therefore when Romania was "liberated" by the red army , I have been solicited to collaborate with the new communist regime . I refused any offer being made , fully aware that this action would mean to conclude a pact with the devil".

"The five gorillas who irrupted my little apartment (I was not married at that time) were security officers disguised as workers . They have been very disappointed to find only scientific papers or books in their search (their expectation was to find anti-communist tracts) and some addresses of U.S.A. officials who were members of the armistice commission . ... They have found also a badge , with French and British inscriptions on it . I have bought it in Paris during the visit of the Royal British family . Aha ! exclaimed the chief of the commando , you were an imperialist spy already".

"Finally , after about one year of detention during which I have been subject to an ill treatment and tortured in different ways (electric shocks , locked in a

cage with a dog keeping the paws on my shoulders and ferociously grumbling from time to time) I have reached one of the highest degree of torture . It was called in the jargon of these red-stared gentlemen , the "atomic bomb" . So , I was taken in a kind of cellar where a motor was making a hell of a noise . Two brutes tied me tightly on a big stick , and shouting I was a bandit who deserves death , they started turning the stick around very fast , many times , letting me fall after five minutes on a mound of gravel . I have fainted several times , but the "boys" threw cold water on me , and the torture started again . Of course , one can easily die in this kind of torture . In fact , I knew a young woman who has been murdered in this manner" .

"Finally , the chief interrogator dictated me what they thought to be needed for my trial . So , I have written that I gave information to an American news - paperman . Everything was an invention , and at the end of the statement I wrote that that statement has been written under no constraint , not forcibly . Before the trial , I have been warned that in case I acknowledge my so called crimes , then I shall be sentenced only to a couple of years in prison . In the contrary case , I shall be sentenced to 25 years of prison . ... In front of the court I said that my statement was the result of unbearable tortures . The result was that I have been sentenced to 25 years of hard labor , while my courageous lawyer has been sent to a concentration camp where this honest man died after two years" .

"For over 13 years , I have been the boarder of six prisons , and during the time of each transfer I was wearing heavy chains at my legs . In one of these prisons of sinister memory , called Aiud , they have killed many people by starvation. After the Rosenberg's trial in the U.S.A. , some political prisoners have been executed and their bodies exhibited in the prison yard".

Professor Roşca has been realeased from prison after he completed almost 14 years . The event became possible in the early 60's , after his mother succeeded to reach President Charles de Gaulle of France , through the members of a delegation visiting Bucharest .

FROM THE BOOKSHELVES

IRINEL DRAGAN : 14 Lektionen über Spieltheorie . Vorlesungsausarbeitung , Universität Kassel , 1981 , 108 pp.

This is a short textbook devoted to the concepts of solution in the theory of 2-person null sum games , and n-person cooperative games with side payments . The first part , consisting of 9 lectures , presents the 2-person games , as well as the computation of the equilibrium points by means of the linear programming methods . The second part of the textbook , consisting of 5 lectures ,introduces the reader to the Nash equilibrium points , the characteristic function , the core , and the von Neumann - Morgenstern stable sets . The text is written with mathematical rigour , and the examples included illustrate how the concepts of solution lead to numerical results . This textbook can be used for an undergraduate introductory course on Game Theory , addressing students in Mathematics , Economics or Engineering .

CONSTANTIN V. NEGOIȚĂ : Fuzzy Systems . Cybernetics and Systems Series , 2 . Abacus Press , Tunbridge Wells , 1981 , VIII + 111 pp.

From the introduction : "The problem of finding a way to handle inexact descriptions has created a challenge that is attracting of workers from an increasing number of disciplines . The proliferation of different kinds of approach has tended to cloud the issue , and this book was born of a conviction that , within the limits of our present knowledge , we can isolate and exploit some principles."

The second chapter of the book constitutes an attempt to illustrate the need for a study of fuzzy systems . The third chapter is dedicated to the statement of the basic principles of such a theory , in the views of the author . The necessary mathematical tools are discussed in the chapters 4 and 5 . Chapter 6 is devoted to the introduction of the concept of a pullback , as a model to be used in synthesizing processes . Finally , the chapter 7 contains various illustrations of the theory exposed in preceding chapters . This last chapter is entitled "Fuzziness in Management" , which emphasizes the intent of the author in regard to applications . As far as the aim of writing such a book is concerned , we quote again from the

author : "This book is not intended to be a treatise on the field , nor is it intended to be a critique of the work of other schools , nor a comparative evaluation of the success and failure of the different approaches to the subject . It is intended to set forth , in an orderly manner , the motivation and viewpoints of a school of thought that cherishes the belief that the field of fuzzy systems can be and should be discussed with mathematical skill."

EMIL GROSSWALD : Topics from the Theory of Numbers , Birkhäuser , Boston , 1983 .

This book is scheduled for publication in short time . It is a textbook intended for use by advanced undergraduate students , or beginning graduates . The book contains 14 chapters , articulated into 3 parts , as follows : Part I . 1. Introduction and historical background . 2. Introductory remarks and notations . Part II . 3. Divisibility . 4. Congruences . 5. Quadratic residues . 6. Arithmetic functions . 7. The theory of partitions . Part III . 8. The distribution of primes and the Riemann ζ- function . 9. The prime number theorem . 10. The arithmetic of number fields . 11. Ideal theory . 12. Primes in arithmetic progression . 13. Diophantine equations . 14. Fermat's equation .

The book is characterized by a rather informal style , that stresses the historic viewpoint . Part II contains standard elementary number theory , occasionally developed beyond the immediate needs , and also the theory of partitions , pushed as far as this is possible by elementary methods . In Part III , some chapters require a knowledge of complex variables (Cauchy's theorem on residues) , others that of elementary modern algebra (group,ring,fields,ideals) . Most chapters end with problems and individual bibliographies . There are two prefaces and two different indexes . Parts I and II form a suitable unit for a one-semester course at the undergraduate level , in Number Theory . The chapters of Part III fall into 3 rather independent groups . Any two of them may be easily covered in one semester , but it seems difficult to cover all of Part III in one semester , except with unusually good students .

ELEMER E. ROSINGER : Nonlinear equivalence , reduction of PDEs to ODEs , and fast convergent numerical methods , Research Notes in Mathematics , Pitman Publ. Co. , Boston , London , Melbourne , 1982 .

From author's preface : "The aim of this volume is to present several recent results developed by the author , in connection with the following three interrelated subjects . First , in Part I , a general nonlinear equivalence theory bet-

ween the convergence and stability of nonlinear difference schemes whic approximate nonlinear systems of evolution PDEs , or more generally - nonlinear semigroups - is presented . ... Then , in Part II , we presents two general methods which reduce the problem of solving nonlinear systems of evolution PDEs to solving ODEs in normed vector spaces , in case of existence of smooth solutions . And finally , in Part III , a type-independent method for the construction of fast convergent explicit nonlinear schemes , approximating smooth solutions of nonlinear systems ov evolution PDEs , is presented."

Among the applications included , we mention those related to the Navier-Stokes equations , to the heat equation , and to the Burgers equation (which in the one-dimensional case looks : $u_t + uu_x = cu_{xx}$) .

The Appendix empasizes two features in the process of applying numerical schemes to the solution of PDEs . First , for a complete analysis of the effect of round-off errors it appears to be necessary to go beyond the limits of the linear theories , even in case linear PDEs are under discussion . Second , the presence of a stability threshold is singled out in case of nonlinear problems.

The list of references includes 65 items .

ADRIAN RESUȘ : Abstract AUTOMATH , Mathematical Centre Tracts 160 , Mathematical Centre , Amsterdam , 1983 , VI + 188 pp.

From the introduction : "This work is concerned with the abstract structure of some representative formal languages in the family of mathematical languages AUTOMATH (de Bruijn , Jutting , van Daalen). The basic analysis was mainly motivated by the need for a theoretical approach to a couple of open problems concerning conservativity situations in AUTOMATH , and closely related formal systems." The foolowing main divisions of the book form its chapters : Chapter I , Language definition (well-formedness) ; Chapter II , Language definition (correctness) ; Chapter III , Global structure of corectness (PA-separation) . A list of references includes more than 100 items .

This is a highly specialized monograph , interesting people in both "pure" and "applied" research , even though it seems rather difficult to delimitate those two aspects of the process . The "Motto" chosen by the author is rather interesting (a quotation from Raymond Queneau about "bourbakism") , despite the fact that only a few will agree that " la pensée humaine se bourbakise " .

In Memoriam

BASIL ROMAN , 1928 - 1983

On February 5 , 1983 , Professor Basil Roman with California State University at Long Beach , a former Vice-President of the American Romanian Academy of Arts and Sciences , passed away in Laguna Hills , California , after a long illness.

Professor Basil Roman was born in Herța , the district of Dorohoi in Northern Moldavia (Herța is now annexed by Soviet Union) , on September 4 , 1928 . He obtained his diploma in Mechanical Engineering from the Bucharest Technical University in 1953 , and the same year he escaped to the West through Germany . He then came to the United States as a refugee , and settled in California at Los Angeles. In short time , through hard work and dedication he succeeded to graduate from the California Institute of Technology . Later on , he has been granted a Ph. D. degree by the University of California at Los Angeles . In 1956 he started working on research projects at the University of Southern California in Los Angeles , and with Northrop Aircraft Corporation . During the academic year 1957 - 1958 , Basil Roman held an Instructorship (Physics) at Los Angeles College . At the same time , he has been emploed as a Mathematician by Western Geophysical Corporation . In 1959 he has been appointed an Assistant Professor of Mechanical Engineering with California State University at Long Beach . He has been promoted to an Associate Professorship in 1965 , and in 1973 he became a Full Professor at that school . He kept this position for almost ten years, until his premature death occured .

Professor Roman became , in rather short time , a well known personality in the academic and civic circles . In 1961 , during a leave from his university , Professor Roman went to Morocco to organize a school in the field of Mechanical Engineering , under UNESCO sponsorship . In 1963 he has been awarded a Fulbright grant , and went to Peru to participate in a study of "Reform in Engineering Education" . As the beneficiary of a grant from NASA , Professor Roman spent one year in Belgium where he conducted research work in Fluid Mechanics (1971) . During his stay in Belgium he obtained a Diploma from the famous von Karman Institute (Rhode Saint - Genese , Belgium) , in Fluid Dynamics . Besides research papers published in various periodicals , Professor Roman authored two books : "Notes on Systems of

Measurements" (1962) , and "Class Lectures in Real Fluids" (1968) , both at the California State University at Long Beach .

Professor Basil Roman was elected a Vice-President of the American Romanian Academy of Arts and Sciences in 1976 , and kept this position until 1982 , when his health conditions were worsening . He took active part in all seven Congresses of the A.R.A. , as follows : in 1976 at the University of California at Berkeley ; in 1977 at Humboldt State University , Arcata ,California ; in 1978 he was the organizer (at California State University in Long Beach) of the third A.R.A. annual Congress ; in 1979 at Monmouth College , West Branch , New Jersey ; in 1980 at Northwetern University in Boston ; in 1981 at the University of Texas at Arlington ; in 1982 at Pomona College in Claremont , California .

Besides his academic activities , Professor Roman found the necessary time to get involved in community affairs , and soon became well known among the circles of the Democratic Party in Orange County . In 1978 he was a candidate of the Democratic Party in the primaries for the election as member of the House of Representatives . He won 45% of the votes casted , not enough to win , but at a very narrow difference of the winner (with 47%) .

In 1958 Professor Roman married Antonia Soberon of El Salvador , and became the proud father of two sons , Vincent and Stephan , and of two daughters , Nadine and Doina . Profoundly devoted to his family , Professor Roman found the necessary time to build up a magnificent residence on the shore of the Pacific , in Laguna Niguel . As a true Engineer , he drafted himself the architectural plans and also provided part of the manual work in order to carry out the project.

Together with his family's members , who survived him , the A.R.A. members deplore his premature death . They convey their deepest condolences to the family , and the expression of their affection .

Note. Dr. Miron Butariu , the secretary-treasurer of A.R.A. , represented the Academy at the the funeral ceremonies held in Laguna Hills Mortuary , and pronounced an eulogy (see A.R.A. Bulletin n.4 , 1983) .

THE BEGINNINGS OF ROMANIAN MATHEMATICS AND ITS FIRST CONNECTIONS WITH THE WESTERN WORLD

Relying on the data presently available in the literature dedicated to the history of Mathematics in Romania , we must conclude that the first Romanian who succeeded carrying out original mathematical research was the Transylvanian Pavel Şipoş (1759 - 1816) . We do not posses full information concerning his education, his career , and research projects carried out . Pavel Şipoş was a canon , and for a certain period of time he fulfilled teaching duties in Orăştie - a small town in Southwestern Transylvania . It is highly probable that he received higher education at the Vatican City (like many Romanians of Transylvania who were either Catholics or Uniates) , or in another Western country .

During the years 1790 - 1791 , Şipoş published a remarkable paper in the Memoirs of the Berlin Academy - the same prestigious institution that counted among its members the Prince of Moldavia Dimitrie Cantemir . The paper authored by Şipoş is dedicated to a rather difficult problem for that stage of development of Mathematics , namely - the rectifiability of the ellipse . If the rectifiability of the circle is not an elementary problem , it involving the process of passage to the limit that has been founded only by the creation of the Calculus , it should be pointed out that the rectifiability of the ellipse is a much more difficult problem in Mathematics . The solution proposed by Şipoş is geometric in its nature and reduces the problem to the estimate of the length of the arc of another algebraic curve , known as the "conchoid of Nicomedes" (225 B.C.) . The discovery of Şipoş noticed and highly evaluated by the Academy , and Şipoş has been awarded a prize . Sixteen years later - in 1807 - Pavel Şipoş publishes a booklet in which he proposes a new kind of trigonometric tables . We do not know whether this attemp had any impact within the mathematical community of those times , but it definitely proves the fact that the author has been deeply concerned with innovative procedures in Mathematics .

The progress made in the Romanian principalities , at the beginning of the past century , toward the establishment of a system of higher education has been

remarkable . The Greek Academies of Iaşi and Bucharest practically ceased their activities around 1820 . Instead , the first institutions of higher education using Romanian as teaching language made their appearance . Gheorghe Asachi (1788-1869) - the well known contributor to the development of culture and education in Moldavia - has to be credited for the creation of the first school of higher technical education in Romania . Indeed , the school for the training of the "Land Survey Engineers" (Ingineri Hotarnici) opened in 1814 in Iaşi , and by 1918 the first class of Engineers graduated . Due to the circumstances of that period , this school did not know a real flourishing , and it enjoed a rather short existence . But it clearly marked the beginning of the higher technical education in Romania , as well as the use of Romanian language as the language of instruction .

In 1835 , again at the initiative of Asachi , the first Romanian institution of higher education still in existence has been created in Iaşi : the "Academia Mihăileană" , which became in 1860 the University of Iaşi . A list of the courses taught at the "Academia Mihăileană" has been discovered rather recently (see the Romanian magazine "Cronica" , published in Iaşi). It is a very rewarding experience to follow that list , because it definitely proves that the "Academia" was an institution of higher learning , comparable to those existing in the Western World at that time . Besides courses in basic areas of Mathematics and Physical Sciences , there are courses in applied areas , such as Descriptive Geometry , Applied Mechanics , as well as courses with clear technical orientation.

In Bucharest , mainly during the sixth decade of the past century , the "Sfântu Sava" College offered complementary courses at higher level , and disciplines like Analytic Geometry or Descriptive Geometry have been taught there .

The second (chronologically) Romanian who has published original research papers in the field of Mathematics was Dimitrie Asachi (1820 - 1868) , the eldest son of Gheorghe Asachi . Dimitrie was a student at the "Academia Mihăileană" and the courses he has taken at that school enabled him to step into the research activity . In 1841 , while in Germany , Dimitrie Asachi publishes in München the paper "Uber die Ümkehrung der Reihen" , and dedicates it to his Alma Mater "Academia Mihăileană" . The aim of the paper is to determine the coefficients A_n of the power series

$$x = A_1 y + A_2 y^2 + \ldots + A_n y^n + \ldots$$

as functions of the coefficients a_n in the expansion

$$y = a_1x + a_2x^2 + \ldots + a_nx^n + \ldots \quad , a_1 \neq 0 .$$

The problem of inversion of power series is of theoretical and practical interest in Mathematics . The fact that Dimitrie Asachi was able to bring a contribution to this problem is definitely a proof of his ability in conducting mathematical research .

Unfortunately , there was no follow up to the paper Dimitrie Asachi published in 1841 , as far as the mathematical interests of the author were concerned . From München , Dimitie Asachi went to Paris where he attends courses at a military institution . After his return to Moldavia , Dimitrie Asachi was again involved in academic activities , and for a while he has taught at the "Academia Mihăileană" . In 1854 he publishes in Iaşi the first treatise of Topography in Romanian .

The first Romanian to author a series of mathematical papers , which appeared in various prestigious journals of that time , is Emmanoil Bacaloglu. In 1858 he obtained a degree in Physics from Paris , ande one year later he went to Germany to continue his studies . During a period of four years , from 1859 to 1863 , Emmanoil Bacaloglu published 16 original papers with mathematical subject . Most of these papers deal with problems in Differential Geometry . But he also published papers in Mathematical Analysis and Mechanics . Most papers authored by Bacaloglu have been inserted in the periodicals "Zeitschrift für Mathematik und Physik" or "Archiv für Mathematik und Physik" . As pointed out by Ilie Popa in [2], one of Bacaloglu's paper presents a special scientific and historical interest . During the period under discussion , several distinguished mathematicians were engaged in a dipute concerning the role and the significance of various concepts of curvature for curved surfaces . Besides the "total curvature" introduced by Gauss , another concept which was in circulation , called "mean curvature" (due to Sophie Germain) , contended for supremacy . Bacaloglu joined the dipute and proposed another kind of curvature , which can be expressed in terms of the principal radii of curvature by means of the formula

$$\bar{K} = \frac{3}{8}(r_1^{-2} + \frac{2}{3} r_1^{-1} r_2^{-1} + r_2^{-2}) .$$

This curvature can be easily expressed by means of the Gauss total curvature K , and the mean curvature H , according to the formula

$$\bar{K} = \frac{3}{2} H^2 - \frac{1}{2} K .$$

On the other hand , it is also true that Gauss curvature or the mean curvature can be expressed in terms of the other two curvatures . It is of outstanding significance the fact that Bacaloglu's curvature has a physical interest in the theory of capilarity .

Ten years after Bacaloglu made this remarkable discovery , the French mathematician E. Roger "rediscovered" it , but failed to mention Bacaloglu's priority . It took more than 60 years , exactly until 1932 , when the well known Italian mathematician Alessandro Terracini made the necessary correction , and proposed the term "Bacaloglu's curvature" for the quantity $\bar{K}$ defined above .

After his return to Romania , Bacaloglu has been appointed in 1864 to a professorship at the newly created University of Bucharest . He was the first Physics Professor with that university , and continued his research activity in Physics and Chemistry . According to N. Mihăileanu [1] , Emmanoil Bacaloglu is the first Romanian who authored scientific papers in Physics and Chemistry .

Finally , the last name to be included among the pioneers of the mathematical research in Romania is that of N. Șt. Botez (Botesu) from Iași . By his training , Botez was an engineer ("conductore cl. I in corpulu inginerilor de ponți și șosele") - a civil engineer according to the present terminology . He has been well known in Iași , since the magazine "Buciumul" of that period contains reference to the "mathematical transactions of Mr. Botez" .

In 1872 , N. Șt. Botez published in Iași a booklet entitled "Proprietatea seriei armonice cu utilitatea ei științifică dizvăluita prin Analisa elementare" (A property of the harmonic series obtained by means of the elementary Analysis). The content of the booklet reveals a skilful mathematician , being able to handle rather advanced mathematical concepts and provide a solution to a mathematical problem which quickly attracted the attention of at least two outstanding mathematicians of that time : Catalan - a member of the Belgian Academy in Bruxelles , and Tchebysheff - a Russian mathematician of European renown . The formula found by N. Șt. Botez in his booklet allows to calculate the limit of a segment of the harmonic series . It can be written in the form

$$\frac{1}{n+1} + \frac{1}{n+2} + \cdots + \frac{1}{2n} = \ell n 2 - \sum_{j \geq 0} \frac{j!}{2^{j+1}(2n+1)\cdots(2n+j+1)} .$$

In May 1872 , the year when the booklet came out in Iași , Botez sent a note (extracted from his booklet) to the Belgian Academy . As

a referee appointed by the Academy , Catalan submitted the following report on the note of Botez : "Le mémoire soumis à l'appreciation de l'Académie est extrait d'un opuscule en langue roumaine , que M. Botesú vient de publier . Aux termes du règlement , ce mémoire ne peut être l'objet d'un rapport . Néanmoins , comme la formule de M. Botesú est importante , comme les considérations qui l'y ont conduit sont simples et ingénieuses , j'ai l'honneur de demander à la classe qu'elle veuille bien adresser des remerciements à l'auteur du mémoire et de la brochure" .

When Catalan wrote in his report that Botez has discovered an important formula , he really meant it . Indeed , in short time , Catalan presents to the Academy his own paper entitled "Sur une formule de M. Botesú de Jassy" . Catalan simplifies and makes some precisions in the formula obtained earlier by Botez , and indicates further applications .

Catalan's paper has been taken as departing point by P. Tchebysheff , who presented his results to the V-th Congress of the French Association for the Advancement of Science (held in Clermont-Ferrand in 1876) . Tchebysheff entitled his paper "Sur la généralisation de la formule de M. Catalan et sur une formule arithmétique qui en resulte" . Actually , the formula under cosideration is that found by Botez, and then slightly transformed by Catalan . Since 1876 , that formula is known as "Catalan's formula" . It thus shows that Botez was able to reach in his investigations a high level of originality , comparable to that common to such famous mathematicians as Catalan and Tchebysheff .

During the last decades of the past century , the Romanian mathematicians like Spiru Haret (Haretu) , David Emmanuel ,Gheorghe Tzitzeica and Dimitrie Pompeiu have won universal recognition .

Note. The above presentation has been compiled by C.Corduneanu , closely following the papers written by Professors N.Mihăileanu and Ilie Popa in the book "Bibliografia Matematicii Romanesti , 1591-1950" , published in 1972 in Bucharest by Editura Academiei (Editor : Eliza Roman) :

[1] N.Mihăileanu , Activitatea matematică din țara noastră până la 1950 .

[2] Ilie Popa , Inceputurile Matematicii Românești .

AMERICAN ROMANIAN ACADEMY OF ARTS AND SCIENCES

B Y L A W S

PREAMBLE

Scholars and artists of Romanian origin living on American soil , as well as a number of American scientists specializing in Romania civilization , culture and language , guided by the aspiration of serving both the American and the Romanian nations through creative scientific and cultural activity , do establish :

The American Romanian Academy

of Arts and Sciences

as a "non profit organization" .

I. Purpose and Character of the Academy

Art. 1. The Academy has the following objectives :

(a) to foster the various spiritual values of Romanian civilization in the framework of the American socio-cultural structures ;

(b) to strengthen the cultural and spiritual ties between the people of the United States and the Romanian nation , as means to expand the freedom of artistic or scientific creativity ;

(c) to provide in the United States , for the Romanian nation , a constant "point d'appui" at the scientific and cultural levels , independent of the political and governmental relationships between United States of America and Romania .

Art. 2. In order to achieve its goal , the American Romanian Academy of Arts and Sciences shall preserve and strongly defend its independence , by avoiding any af filiation to other organizations or its subordination to Associations or groups of any type .

Art. 3. The residence of the American Romanian Academy (A.R.A.) will be that of its President . The President represents the A.R.A. de facto and de jure .

II. The Members , their categories , Admission Procedures, Cessation of Membership

Art. 4. The A.R.A. consists of :

(a) full members ; (b) associate members ; and (c) honorary members .

Art. 5. The full members are elected according to the following criteria :

(a) Their activity in the field of their specialization , with publications or exhibitions of value , recognized by their respective scientific or artistic circles ;

(b) Their concern for the ideals of promoting Romanian culture under conditions free from political pressures . Any member of the A.R.A. has the right to recommend to the President - by a documented report - the admission of a new member into the Academy . The President will ask also the advice of a full member in a domain close to the special field of the candidate . In the event , this advice is favorable , the President shall transmit in writing the proposal to all full members of the Academy , together with all necessary data in view to enable the members to be informed about the academic (scientific or artistic) activities of the candidate .

In this proposal , the President will specify the candidate's status in his or her country of residence in order that it may be established whether the candidate is in a position to undertake lasting collaboration with the A.R.A. in the spirit of freedom stipulated by the Bylaws . The admission as a member is obtained by two thirds of the votes received by mail from the full members , provided that the number of ballots received represents the majority of the total number of the full members of the A.R.A.

Art. 6. The admission of the associate members follows a procedure similar to that described in Art. 5 . However , their admission is justified primarily by the moral and material support they offer the Academy .

Art. 7. Persons who have rendered particular services to the Academy or have substantially contributed to the fulfillment of its goals may be appointed honorary members at the President's proposal and with the approval of the Executive Committee ; the honorary members are exempted from the annual dues .

Art. 8 . Only the full members have the right to vote .

Art. 9 . The quality of member is lost by anyone who :

(a) departs from the stipulations of Articles 5 or 6 of the Bylaws ;

(b) offers a written resignation to the President ;

(c) does not pay the annual fees during two consecutive years .

Membership is automatically terminated in the case specified under (c) , at

the Secretary-Treasurer's acknowledgement ; and in the case specified under (b) , at the acknowledgement of the President . These acknowledgements should be included in the Minutes of the next meeting of the Executive Committee . In the case under (a) , the situation should be submitted by the President to the Grievance Committee (see Art. 27) following a notice given by the Executive Committee . The Grievance Committee will proceed to its investigation and will present its report to the President (see Art. 17) .

III. The Governing Bodies

Art. 10. The General Assembly takes place once a year at the time of the Congress (ordinary meeting) , or more than once yearly , if called in extraordinary meeting by the President. The President summons the Assembly by circular letter addressed to full members , one month before the date which has been decided for the meeting . The agenda of the meeting shall be attached to the letter . Associate members may participate in discussions , but decisions are taken by the majority of votes of the full members .

Before a General Assembly may be duly constituted , the personal presence of at least ten full members is required . Decisions of the General Assembly require a majority of 50 percent plus one of those members who are present in person or who have provided a written proxy . If , by any lack of "quorum" , the meeting cannot be assembled , the President , with previous approval of the Executive Committee , may consult all the full members by mail , based on the established agenda .

The results will be communicated by the President to all members and inserted in the next Bulletin .

The General Assembly deliberates on the order of the day , discusses and approves the reports of the President and of the Secretary-Treasurer , approves the balance sheet of incomes and expenditures , elects the members of the Executive Committee who will serve for three years , decides the place , the university nd the date of the next Congress and General Assembly and elects the members of he Grievance Committee .

t. 11. The Executive Committee conducts the activity of the A.R.A. between the nual congresses . The Committee is composed of nine members , elected for a hree-year term by the General Assembly , namely : The President , the Vice ident , the Secretary-Treasurer and six Counselors .

1. The President represents the A.R.A. , presides over the Congresses and the General Assembly , approves the programs of the annual Congresses in agreement with the decisions taken by the General Assembly , supervises the carrying through of the decisions taken by the General Assembly , conducts the procedures for the election of new members (cf. Art. 5 , 6 , 7) , approves the expenditures going beyond the scope of current and routine administration , summons the General Assembly meeting at least once a year , at the date of the Congress . At least once a year , the President informs all full , associate and honorary members by circular letter about the activities of the Academy (in relationship with Congresses , Publications , Studies , Exhibitions , Festivals , Financial Matters , etc.) , communicates to all members by special circular letter : the admission of new members , the cases of cessation of status of membership , the recommendations of the Grievance Commitee .

2. The Vice President acts as substitute for the President in case of need and assists the President especially in problems related to publications .

3. The Secretary-Treasurer draws up the minutes of the meetings of the General Assembly and of the Executive Committee , carries on the task assigned to him by the President , administers the assets of the Academy , keeps the account book , writes the financial reports , and makes payment of the expenditures needed by the activities of the Association under the supervision of the President . The Secretary-Treasurer submits the balance sheet , including the income and expenditures for approval before the Executive Committee at each of its meetings .

4. The six Counselors correspond to the various branches of activity of ' Academy in agreement with the specifications below (see Art. 13) . At the re of the editors in charge of the publications of the A.R.A. , the counselors on the works submitted to publication which fall within the competence of own general fields of activity . They also report to the Scientific Comm Congresses in maters related to papers on subjects close to their compe view of organizing the programs by sections .

The Executive Committee takes decisions in any matter falling w petence . The Executive Committee is summoned by the President wher considers it necessary . The letter of convocation shall include t the meeting , asking that those members who are not able to part should send their votes by mail ; for matters of emergency , th

sult the members of the Executive Committee by telephone or telegram . The decisions of the Executive Committee as well as the voting procedures shall be inserted in the official report of the proceedings , which will be submitted for approval at the next meeting , and published in the next Bulletin of the Academy .

IV. The Activities of the Academy

Art. 12. As an institution promoting Romanian studies , the A.R.A. intends to introduce and stimulate knowledge of the cultural values of the Romanian nation in international circles , by encouraging research into the various domains of the humanities , positive sciences and arts . The studies undertaken by A.R.A. in these domains will examine the Romanian past and present , as well as various Romanian creations (artistic or scientific) achieved inside or outside Romania , in the framework of the orientations and cultural perspectives of the contemporary free world .

Art. 13. The activities of A.R.A. include Congresses , publications , art exhibitions and music festivals .

1. Congresses are annual meetings of academic standard in which the full members , the associate members , as well as other persons interested in Romanian culture , may participate and present papers . The inclusion of papers in the program will be made on the basis of abstracts (sent before the date indicated by a circular letter) , after approval of the congressional scientific committee composed of the President , counselors , as well as the local organizer . The congresses take place annually in the locality and at the university selected by the general Assembly of the preceding year .

2. The Publications consist of : volumes , periodicals and bulletins . The editorial practices adopted in these publications will conform to those followed in scholarly Societies in the United States . The editing of each volume , bulletin or periodical , is assigned to an editor by the Executive Committee at the proposal of the President , following a written report of the Vice President .

3. Exhibitions are generally organized similarly to other parts of the congressional programs - at the place and time scheduled for congresses . They can also be organized separately by a decision of the Executive Committee .

4. Music Festivals are generally organized at the time of congresses and are designed to promote and encourage the free creation of Romanian music. Festivals can also be organized separately following decision of the Executive Committee.

V. Financial Matters

Art. 14. The financial resources of the Academy are :

(a) The annual fees of members established by General Assembly ;

(b) Donations made by individuals ,foundations or private corporations . Acceptance thereof is subject to the decision of Executive Committee .

Art. 15. The A.R.A. shall proceed to the election of a Fund-Raising Committee from individuals and private institutions for publication of A.R.A. volumes , bulletins and periodicals . The Committee will be composed of five to seven persons elected by the General Assembly for a three-year term . The Fund-Raising Committee will work under the general supervision of the President . The funds are part of the assets of the Academy , to be used for meeting the costs of printing A.R.A. publications .

VI. The Grievance Committee

Art. 16. Any member of the A.R.A. has the right to addree a written complaint refering to : violations of the bylaws ; activities within the Academy inconsistent with its aims ; and financial irregularities . The complaint , giving a truthful and documented presentation of the facts , must be signed before a notary public . The President will submit the complaint to the Grievance Committee for investigation and report . The complaint has a confidential character .

Art. 17. The Grievance Committee is composed of three members elected by the General Assembly for a three-year term . Its members cannot be at the same time members of the Executive Committee . For the first year , the President of the Grievance Committee shall be the eldest of the three members . Then , the President may pass the function to other members of this committee by agreement among them . The solution of a complaint should not be delayed for more than 60 days from the date of its presentation to the President of A.R.A.

If the Grievance Committee needs an extension of time , the President of A.R.A. may grant another delay of a maximum of 30 days , by which time the procedure must be completed . The documented opinion of the Grievance Committee shall be submitted for decision to the Executive Committee . The decision will be communicated to the claimant by the President of A.R.A. by registered letter . The claimant retains the right of appeal to the General Assembly .

VII. Amendment of the Bylaws

Art. 18. Any amendment of the Bylaws falls within the jurisdiction of the General Assembly . The Assembly reaches decisions in this matter by a majority of two-thirds of the total number of full members of A.R.A. , voting in person or by proxy . The text of any proposed amendment should be attached to the letter of convocation sent by the President to all full members one month before the date of the Assembly , together with the agenda and with a statement confirming that the proposed text has been approved by the Executive Committee .

VIII. Final Provisions

Art. 19. In the extreme event in which the purposes of the Academy could no longer be achieved , A.R.A. could be dissolved . The dissolution of A.R.A. will be decided by at least two-thirds of the votes of the members of the Executive Committee . The decision of the Executive Committee must be approved . a special meeting of the General Assembly with a two-thirds majority of votes . In case of dissolution the entire assets of the A.R.A. shall be transferred to the "Hoover Institution for War , Revolution and Peace" of Palo Alto , California , which has already treasured other important Romanian documents .

Art. 20. The English version of the present Bylaws is the only authentic or juridically valid one .

Art. 21. The present Bylaws of A.R.A. replace the Bylaws of September 16 , 1975 .

MARIA I. MANOLIU-MANEA - President
American Romanian Academy of Arts and Sciences

NICHOLAS TIMIRAS - Vice President
American Romanian Academy of Arts and Sciences

MIRON BUTARIU - Secretary-Treasurer
American Romanian Academy of Arts and Sciences

Davis , California April 2 , 1983

Note . The text of A.R.A. Bylaws has been approved by referendum of A.R.A. members , February 1983 .

CIPRIAN FOIAŞ : HIS 50th ANNIVERSARY

Ciprian Foiaş was born on July 20th , 1933 , in Reşiţa , province of Banat , Romania . His father was a prominent physician who held important positions in the local government . In 1950 , after graduating from the Lyceum (high school) in the city of Reşiţa , Ciprian Foiaş went to Bucharest , where he enroled as a Mathematics Major at the Faculty of Mathematics and Physics of the University . He graduated in 1955 from that school , obtaining a Diploma (M. Sc.) in Mathematics . In 1962 he obtained his Ph. D. degree in Mathematics , from the Institute of Mathematics of the Romanian Academy .

From 1955 to 1966 , Ciprian Foiaş held various teaching and research positions with the University of Bucharest , and with the Mathematical Institute (presently abolished by the authorities) of the Romanian Academy in Bucharest . In 1966 , when his mathematical work was already known around the world , Ciprian Foiaş has been appointed to a Prpfessorship with the University of Bucharest , the Faculty of Mathematics and Mechanics . In 1978 , after the ICM held in Helsinki , Ciprian Foiaş took the difficult decision not to return to Romania (where his wife Nicoleta and two daughters were living at that time) , and he spent the academic year 1978 - 79 with the University of Paris . During the summer of 1979 his family joyned him in Paris , and a few months later , in January 1980 , they arrived in the United States of America where Ciprian Foiaş accepted a Professorship , with Indiana University , at Bloomington . He is currently on that position , but concomitantly he held (1979 - 1983) a Professorship at the University Paris - Sud .

During the last 20 years , Ciprian Foiaş has visited many universities in Europe and in the United States of America . Here is a partial list : University of Szeged (1963 , 1965 , 1966) ; University of Dresden (1965) ; University of Pisa (1968) ; University of Paris (1968) ; Indiana University (1970 , 1974) ; Stanford University (1970) ; College de France (1974) ; University of Paris (1978 - 1979) . He also visited the Courant Institute of Mathematical Sciences in New York (1974) , as a result of a Fulbright award .

Ciprian Foiaş has delivered numerous invited addresses on various occasions .

In 1964 he gave an address to the International Conference on Functional Analysis , held in Liège , Belgium . In 1970 he has given an invited address at the International Congress of Mathematicians held in Nice . The same year he attended and gave invited addresses at conferences on Functional Analysis held in Bloomington and Tihany (Hungary) . In 1978 he has been chosen again to give an address at the ICM in Helsinki . In 1979 he delivered addresses at the following meetings : 4th International Symposium on Mathematical Theory of Networks and Systems (Delft) , the Symposium of the IUTAM at Paderborn , the First O. Toeplitz Memorial Lecture in Tel - Aviv (together with P. D. Lax) . In 1980 he gave an invited address at the 84th Summer Meeting of the AMS in Ann Arbor , Michigan . In 1981 he attended the Second O. Toepltz Memorial Colloquium in Tel Aviv , and presented an invited paper . In 1982 , at Stanford , Foiaş addressed the R. S. Phillips Conference on Partial Differential equations .

Presently , Ciprian Foiaş is on the editorial board of the foolowing journals: Journal of Functional Analysis ; Integral Equations and Operator Theory ; Communications in Partial Differential Equations ; Indiana University Mathematical Journal . He has been also on the editorial board of Revue Roumaine de Mathématiques Pures et Appliquées , and of other Romanian mathematical journals . The journal Operator Theory , jointly published by Romanian and American mathematicians , is basically the creation of Ciprian Foiaş . Unfortunately , his name has been removed from the list of editors , even before the first issue went to printers .

In almost three decades of mathematical research , Ciprian Foiaş produced an impressive number of research papers , has co-authored two books (one with I. Colojoară ,and another with Bela Sz.-Nagy) on topics in Operator Theory . The book written jointly with Bela Sz.-Nagy has English , French , and Russian editions . During his association with the Institute of Mathematics of the Romanian Academy , Ciprian Foiaş organized , directed , and stimulated a seminar on Operator Theory, in which took part most of the bright young scholars Romania counts today in this field of modern research . Some of them have been his Ph. D. students , some other just participants in his seminar and co-workers .

The main mathematical interest of Ciprian Foiaş has been focused on Operator Theory , as well as on its applications to Analysis and Partial Differential Equations . Together with Professor Bela Sz.-Nagy , from the University of Szeged , an abstract harmonic analysis of contractive or dissipative linear operators on Hilbert spaces has been developed . It turned out , much later after this theory has been built up , that it is of outmost significance in System Engineering . It

appears that this theory will generate many more applications than presently known, and an illustration of this statement is provided by one of the papers inserted in this volume (see the paper of V.Protopopescu , who applies this theory to linear transport theory in physical sciences). The basic achievements in this direction of research are contained in the well known monograph "Analyse Harmonique des Opérateurs de l'Espace de Hilbert" , Masson & Co. & Akademiai Kiado , 1967 , authored by Sz.-Nagy and Foiaş .

The most recent interests of Ciprian Foiaş in research field are related to the investigation of Navier-Stokes equations which dominate the modern theory of Fluid Mechanics . His basic approach is inspired by the theory of operators and he views these equations as the study of a second degree nonlinear operator on a Hilbert space . This point of view , presently embraced by several authors , appears to be relevant enough in the mathematical study of certain turbulent phenomena in Fluid Dynamics .

During his activity in Romania , which spans on a period of 23 years (1955 - 1978) , Ciprian Foiaş has contributed immensely to the build up of the renown the Romanian Mathematical School is enjoying nowadays. He was strongly connected to the activities of the Institute of Mathematics of the Romanian Academy , a demanding and critical member of the editorial boards of the mathematical journals published by Romanian Academy , and a trusted advisor and friend of the late Director of the Institute , Miron Nicolescu .

A very dynamic element and enthusiastic person in class , at the meetings of his seminar , at various meetings of the committees he was joining , as well as during his "mountain climbing" sessions , Ciprian Foiaş is deeply regreted by his former students and colleagues in Romania . The Romanian Community in exile is proud of having Ciprian Foiaş as a prominent member .

Ciprian Foiaş and his wife Nicoleta live now in the academic city of Bloomington , Indiana . Their two daughters are attending college near Old Boston : one at MIT , another at Harvard .

C.Corduneanu

P E R S O N A L I A

Dr. ILIE POPESCU has been recently appointed as a "Professeur régulier" with the Department of Computer Sciences at the University of Quebec at Hull , Canada .

Professor DAN SIMOVICI , with the University of Massachusetts at Boston , attended the 13-th International Symposium on Multivalued Logic , held in Kyoto , Japan. He gave a paper entitled "Roots of n-valued Switching Functions" . The travel has been made possible by a grant from the IEEE .

Professor NICOLAE THEODORESCU from the University of Bucharest is 75 years old . During the last five years he has been an Emeritus Professor , and held several offices , including that of President of the Romanian Mathematical Society . He is a former student of Jacques Hadamard , and conducted valuable research work in the field of Partial Differential Equations and related areas . He authored several books on mathematical subjects , and significantly contributed to the promotion of mathematical research in Romania . The Romanian mathematicians in exile are congratulating him on his 75-th birthday .

Professor ISAAC J. SCHOENBERG , presently with the Mathematics Research Center at the University of Wisconsin , is celebrating this year the 80-th anniversary . He was born in Galatzi - Romania , and attended courses at the University of Iaşi, where he obtained his Ph. D. in Mathematics and held various positions . The Romanian mathematicians are congratulating him on this occasion .

Professor CIPRIAN FOIAŞ from Indiana University , has taught a short course in the first Summer session at the University of Texas at Arlington (May 30 to June 10) . The topic of the course was "The Navier-Stokes Equations". Treating these basic equations of Fluid Dynamics as a Riccati (quadratic) equation in an abstract space, he succeeded to introduce the audience to a very fruitful approach in regard to the Navier-Stokes equations . The lectures have been based on research conducted during the past few years by the author , Roger Temam , Petre Constantin and other researchers in the field .

Dr. DAN VOICULESCU with INCREST , Bucharest , gave an invited address at the Inter-

national Congress of Mathematicians held in Warsaw , Poland , last month of August (information conveyed by Professor Ciprian Foiaş) .

Among the recipients of the awards made by the Sloan Foundation for the next two years , one counts two mathematicians of Romanian extraction : TUDOR RAŢIU - presently with the University of Arizona at Tucson , and SERGIU KLAINERMAN from the Courant Institute of Mathematical Sciences at NYU . We send them the best congratulations for their achievements .

Professor C. CORDUNEANU from the University of Texas at Arlington attended the VIII - th Congress of the American Romanian Academy of Arts and Sciences , held last month of April at the University of California at Davis . The general theme of the Congress was "Romanian Nation and the Western World" . He presented a paper entitled "The Beginnings of Romanian Mathematics and its First Connections with the Western World" . A concise version of the paper is inserted in this volume of *Libertas Mathematica* .

Dr. DAN PASCALI - a former member of the Institute of Mathematics of the Romanian Academy - has immigrated recently to the United States . He has been invited to conduct research activities and give lectures at the University of Delaware , and at the Mathematics Research Center with the University of Wisconsin , Madison .

ANNOUNCEMENT A.R.A.

The IX - th Congress of the American Romanian Academy of Arts and Sciences is scheduled for May 4 - 6 , 1984 , at Brown University in Providence , R. I. The local organizer of the congress is Professor Sanda Golopenţia-Eretescu , with the French Department at Brown University .

We invite our Romanian colleagues to participate at the Congress and present a paper related to their research interests . A session exclusively dedicated to mathematical contributions is planned . Until today , the following colleagues have agreed (in principle) to give a paper : Irinel Drăgan , Dan Simovici , Samuel Zaidman and Constantin Corduneanu . We hope many more colleagues will be joining us . Tentative title of the talk should be sent to Professor C.Corduneanu , the A.R.A. counselor for Sciences , before or on March 1 , 1984 .

THE AUTHORS OF VOLUME III

CONSTANTIN CORDUNEANU (see biographical note in Volume I of Libertas Math.)

IRINEL DRAGAN (see biographical note in Volume II of Libertas Mathematica)

LANCE D. DRAGER received his BA in Mathematics from the University of Minnesota (1972) and his MA (1973) and Ph. D. (1978) in Mathematics from Brandeis University . He has taught at St. Francis College and Georgia Institute of Technology, and is currently at Texas Tech University in Lubbock , Texas . He was a visiting member of the Courant Institute of Mathematical Sciences at New York University (1979 - 1980) . His interests are in Global Analysis , Differential Geometry , and Ordinary , Functional and Partial Differential Equations . The general theme is the application of geometric ideas to differential/related equations , and to physical and applied problems . He has secondary interests in computers .

CIPRIAN FOIAŞ has his 50- th anniversary this year . We are inserting in this volume a paper dedicated to this event .

GEORGE ISAC (see biographical note in Volume II of Libertas Mathematica)

WILLIAM J. LAYTON was born in Georgia in 1956 . He grew up on his grandfather's farm near Milledgeville , and attended Georgia College there . He graduated from that college in 1976 , with a BS (magna cum laude) in Mathematics . He attended graduate courses at the University of Tennessee in Knoxville , and in 1980 he obtained from that school a Ph. D. degree in Mathematics . Currently , he is an Assistant Professor with Georgia Institute of Technology (Atlanta , Georgia) . During the academic year 1982 - 1983 , he held a position of Visiting Professor with the Catholic University of Niejmegen (The Netherlands) . His research interests include Differential Equations , Functional-Differential Equations and Numerical Analysis .

DUMITRU-DAN PASCALI was born on June 18 , 1935 , in Armăşeşti - Ilfov , Romania. He attended undergraduate and graduate courses at the Faculty of Mathematics and Physics , the University of Bucharest (1953 - 1958) . He has been appointed a

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