

## On the Sixtieth Birthday of Professor Ph.D. Dumitru Acu

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Professor Ph.D. Dumitru Acu is a mathematician with remarkable results in Numerical Analysis, Inequalities, Applied Mathematics in Technology, Arithmetic and Number Theory, Functional Equations and Mathematical Didactics.

Dumitru Acu was born on the 20th of August 1945, in the commune of Rebrîșoara from Bistrița - Năsăud district, Romania. He attended the courses of the Faculty of Mathematics and Mechanics of “Babeș - Bolyai” University from Cluj-Napoca between 1963 and 1968, obtaining the licence degree in Mathematics and Computer Science profile. He made his choice at repartition for the position of Second degree preparator at the Mathematics Department of the Pedagogical Institute from Baia-Mare. In the same year, at the same time with the apparition of the Teaching Staff Statute, he was named Assistant on Probation, position which he held until the 1st of September 1971, when he becomes titular as an University Assistant.

Begining with 1974, at the founding of the Superior Education Institute from Baia-Mare he was named University Lecturer as part of the same department.

On the 15th of October 1977, for the benefit of education, he transferred as an University Lecturer Entitled at the Superior Education Institute from Sibiu, Faculty of Mechanics, Technology Department.

In the year 1979, together with the reorganization of the departments, he moved as Titular Lecturer at the Applied Mechanics Department. After a new reorganization of the departments he became a member of the Fundamental Disciplines and General Technique Culture until the 1st of September 1990.

From 1982 he worked as Titular Lecturer on the position of Assistant Professor. Starting from October 1990 until 1999 he occupied the position of Titular Assistant Professor at the Mathematics and Computer Science Department at “Lucian Blaga” University of Sibiu. On the 11th of March 1999 he was named University Professor at the Mathematics Department of the same University.

In the year 1980 he obtained the scientific title of Doctor of Mathematics with the thesis: “Extremal Problems in the Numerical Integration of Functions”, having Mr. Prof. Ph.D. Dimitrie D. Stancu, from Cluj University as scientific guide.

In 1982, he received the title of Distinguished University Lecturer.

Between March 1st 1989 - January 21st 1990 he held the rank of Head of Department at the “Fundamental Disciplines and General Technique Culture”. From February 1995 until the 6th at February 1996 he was Dean of the Faculty of Sciences at the “Lucian Blaga” University of Sibiu, and starting with September 22nd 2001 he was Head of the Department, then Head master of the Department of Mathematics from the University of Sibiu.

He distinguished himself all this time until the present not only by the fact that he is a well-known mathematician but also through his humanism

being a catalyzer for the community that he is leading and a good teacher for a lot of young mathematicians.

Also Mr. Prof. Dumitru Acu is reviewer at Zentralblatt für Mathematik (from 1982) and at Mathematical Reviews (from 1989). He is adviser at Mathematics Magazine (USA) and at Gazeta Matematică (Romania) (Mathematical Gazette). At Mathematical Gazette he took part in the editorial board, between 1982 - 1996.

He is member in the editorial boards of General Mathematics and Mathematical Education Reviews, and from 1999, respectively 2005, he is Editor-in-Chief.

He was member in the Romanian Mathematical Sciences Society board (1995 - 1998; 2004 - ) and President of the Mathematical Sciences and Scientific Seminar of the teachers from the district of Sibiu.

More than that, the activity of Mr. Prof. Dumitru Acu has varied, and this thing ennobles him, by the fact that from 1990 until 1992 he was the vicepresident on the whole country of the eldest Romanian cultural society “The Transylvanian Association for Romanian Literature and for the Culture of Romanian People - ASTRA” (founded in 1861), after that becoming its president. As its president at country level, he tried and is still trying to respect its principle since ever: “*where the law disunites, let culture unify*”.

He is director of the “People’s Paper” review and he was member of the “ASTRA” review (Braşov) editorial board. He is part of the editorial board of the Mathematical Review from Timișoara and Carpathian Journal of Mathematics and Creative Mathematics (North University of Baia Mare).

Until now he was co-organizer or organizer of more symposiums or scientific sessions with a local, national or international character. He sustained

tens of dissertations and conferences.

The scientific activity of Mister Prof. Ph.D. Dumitru Acu has materialized in the following fields of mathematics:

**Numerical Analysis.** He concerned himself to the study of some extremal problems in the study of the quadrature formulae.

The published papers in this domain of interest have been positively reviewed in the well-known reviews MR Zentrallblatt Math., RJ and have been quoted by mathematicians from Cluj.

During the last years through collaboration, he has obtained some results in the evaluation of the rest of some operators.

**Inequalities.** Strongly related to the preoccupation in Numerical Analysis are those from the inequalities field. These results have been presented in many articles (1990, 1991, 1993).

Some of the obtained inequalities have applications in the Actuariale Mathematics.

**Arithmetic and Number Theory.** He had important preoccupations in solving some exponential diophantine equations with or without restrictions.

In 1990 in three papers published in the Mathematical Astra, a wide range of exponential diophantine equations with restrictions are solved and also equations that solve many open problems enunciated by Solomon Marcus in the book “*The Shock of Mathematics*”, 1987. He obtained some other results regarding diophantine equations in 1994, 1995 and 1999.

Romanian mathematicians (I. Sandor, M. Cipu, A. Pascu etc.) were also interested in getting thoroughly into some results from Mr. Prof. Ph.D. Dumitru Acu papers.

**Functional Equations.** He was concerned by the study of some functional equations that interfere in the study of the differential equations.

In 1981 he gave a proof and also a generalization for a theorem by Angheluță that was concerning an algebraical equation.

**Mathematical Didactics.** He considered important for an university Mathematics teacher the preoccupations in the field of Mathematical Didactics.

With this end in view he made many courses and collections of problems multiplied at the institutes where he was working at.

He participated as joint-author at the achievement of some collections of problems edited on national level.

A permanent preoccupation of his on scientific and didactical line was also the one of making some materials in which Mathematics is presented in an understandable and rigorous manner for youth, pupils and students.

Another aspect of his didactical activity is the one of problem proposer. He suggested more then 300 problems in the reviews of speciality, many of them being resumed in collections of problems.

It is to be noticed also the fact that Mr. Prof. Ph.D. Dumitru Acu has a wide contribution in the fields of Mathematical Didactics and publicism (see *Mathematical Gazette*, *Mathematical Astra* etc.)

## **List of Publications of Mr. Prof. Ph.D. Dumitru Acu**

### **I. Mathematical articles**

1. *On one formula of Taylor Type for Three Functions*, The Bulletin of the Pedagogical Institute, Baia-Mare, vol. I, p. 339-345, 1970 (in romanian).
2. *The Generalization of the Steffansen Quadrature Formula*, The Bulletin of the Pedagogical Institute, Baia-Mare, vol. III, p. 223-226, 1971 (in

romanian).

3. *One Generalization of Newton's Quadrature Formula*, Sc. Cerc. Mat., The Academy of the Socialist Republic of Romania, Tom 23, no. 7, p. 1003-1008, 1971, Bucureşti (in romanian).
4. *One Compound Quadrature Formula*, Sc. Cerc. Mat., The Academy of the Socialist Republic of Romania, Tom 24, no. 3, p. 317-324, 1972, Bucureşti (in romanian).
5. *One Combined Quadrature Formula*, Sc. Cerc. Mat., The Academy of the Socialist Republic of Romania, Tom 24, no. 9, p. 1319-1328, 1972, Bucureşti (in romanian).
6. *Practical Quadrature Formulae, Optimal for a class of Functions*, The Bulletin of the Pedagogical Institute, Baia-Mare, vol. IV, p. 249-257, 1972 (1974) (in romanian).
7. *On some Quadrature Formulae*, Bull. Şt. I. I. S. Sibiu, seria Tech. Mat. vol. I, p. 4-8, 1978 (in romanian).
8. *The Optimization of the Trapezium Formula*, Bull. Şt. I. I. S. Sibiu, seria Tech. Mat. vol. II, p. 281-285, 1979 (in romanian).
9. *New Quadrature Formulae with Fixed Elements*, studia Univ. "Babeş-Bolyai", seria Mat., XXV, 3, p. 25-31, 1980, Cluj-Napoca (in romanian).
10. *About Oblath's Theorem*, Proceedings of the Itinerable Seminar of Functional Equations, Approximation and convexity, Timişoara, 7-8 November 1980, p. 97-106 (in romanian).
11. *Generalizations of some inequalities*, Univ. Boegrad Publ. Elektrotehn., ser. Math. Fiz., no. 678-715, 58-62, 1980.
12. *Optimal Combined Quadrature Formulae*, (dedicated to Prof. D. V. Ionescu at his 80th anniversary), Studia Univ. "Babeş-Bolyai", Mathematics XXVI, 3, p. 6-12, 1981.

13. *Optimal Quadrature Formulas with Fixed Elements*, Bull. Șt. I. I. S. Sibiu, seria Tech. Mat. vol. IV, p. 17-22, 1981 (in romanian).
14. *Extremal Equalities on two Variables Classes of Functions*, Bull. Șt. I. I. S. Sibiu, seria Tech. Mat. vol. V, p. 5-14, 1981 (in romanian).
15. *On one Problem by Th. Angheluță*, Bull. Șt. Inst. Politeh. Cluj-Napoca, 24, p. 7-10, 1981 (in romanian).
16. *On some Finite Differences Properties*, Proceedings of the Itinerable Seminar of Functional Equations, Approximation and Convexity, 10-12 December 1981, Cluj-Napoca, p. 7-14, 1981.
17. *Optimal Cubature Formulae with Fixed Elements*, Studia, Univ. "Babeș-Bolyai", Math., XXVIII, p. 16-20, 1982.
18. *The Generalization of Tricomi's Numerical Integration Method*, Bull. Șt. I. I. S. Sibiu, seria Tech. Mat. vol. VI, p. 3-6, 1982 (in romanian).
19. *V-Optimal Quadrature Formulae with Weight Functions*, Proceedings of the Itinerable Seminar of Functional Equations, Approximation and Convexity, 19-21 May 1983, Cluj-Napoca.
20. *V-Optimal Quadrature Formulae of Gauss-Christoffel with weight*, The Fourth Symposium of Functional Analysis and Applications, University of Craiova, INCREST, 4-5 November, p. 81-86, 1983.
21. *About the Improvement Possibility of the Disk Miller for Threading*, The Fifth National Conference of Tool Machines, Bucharest, Second Part, 9-10 November 1984, p. 381-387 (in cooperation) (in romanian).
22. *Application of the Finite Element Method in the Study of some Tools Design*, The Fifth National Conference of Tool Machines, Bucharest, Second Part, 9-10 November 1984, p. 388-392 (in cooperation) (in romanian).
23. *Contributions to the Notation of Dimension in Machines Design*, The Fifth Session of Technical Scientific Communications, MIMUEE - CIFS,

- 12-13 July 1984, p. 21-24, Cugir (in cooperation) (in romanian).
24. *The Matricial solving of the Chains of Dimensions*, The Fifth Session of Technical Scientific Communications, MIMUEE - CIFS, 12-13 July 1984, p. 161-166, Cugir (in cooperation) (in romanian).
25. *The determining of the mathematic model of hydrodynamic lubrication in vibrodrawing*, The Fifth Communications on Cold Processing Equipment and Process, Timișoara, 20-21 November 1986, vol II (in collaboration).
26. *The determining of the mathematic model of hydrodynamic lubrication in vibrodrawing II*, Proceedings of the Fifth Conference on the Cold Processing Equipment and Process, Timișoara, 20-21 November 1986, p. 219-224, vol. II (in colaboration).
27. *On some Functional Equations of M. Bertolino's Type*, Proceedings of the Symposium of Mathematics and its Applications, 1-2 November 1986, p. 1-2, Timișoara.
28. *Three Exponential Diophantine Equations*, Bull. Șt. I. I. S. Sibiu, seria Tech. Mat. vol. IX, 1986, p. 20-22 (in romanian).
29. *Creative Computer Aided Design of the Disk Millers*, Bull. Șt. I. I. S. Sibiu, seria Tech. Mat. vol. VIII, 1986, p. 30-36 (in romanian).
30. *V-Optimal quadrature formulas with multiple nodes*, Seminar on numerical and statistical calculus, Faculty of Math. Phy, Univ. of Cluj-Napoca, Preprint no. 9, 1987, p. 29-36
31. *The use of Matricial Calculus in Devices Design*, Proceedings of the First Conference on Processing Devices, Control, Assemblage from Machine Design, Bucharest, 6-7 December 1987, p. 105-107 (in cooperation).
32. *Comparative Study of the Dynamic Behaviour of the Disk Millers*, Studies and scientific communications - technical sciences, The Subengineers Institute Bacău, 1986 (1987), p. 334-338 (in cooperation) (in romanian).



33. *Some Algorithms for the sums of Integer Power*, Math. Magazine, vol. 61, no. 3, 1988, p. 189-191, S.U.A.
34. *New Generalizations for Functional Equation of Bertolino's Type*, Proceedings of the Second Symposium of Mathematics and its Applications, 30-31 October 1987, Timișoara, 1988, p. 47-50.
35. *V-Optimal formulas of quadrature with height functions of the Laguerre type*, Proceedings of the Second Symposium of Mathematics and its Applications, 30-31 October 1987, Timișoara, p. 51-54.
36. *On unitary Strain in Vibro-drawing*, Proceedings of the Conference on Mechanical (Vibrations), ed. VI, Timișoara, 1988, p. 47-123 (in collaboration).
37. *The use of quadrature formulae in obtaining inequalities*, Studia Univ. Babeș-Bolyai, ser. Mathematica, XXXV, 4, 1990, p. 25-33.
38. *Inequalities of Bernstein-Mordel type, in the Book: D. S. Mitrinovic, J. E. Pecaric, A. M. Fink, Inequalities Functions and their Integrals and derivative*, Kluwer Academic Publishers, vol. 53, 1991, p. 492-499.
39. *V-Optimal Formulae Quadrature with Weight Function of Laguerre type*, Bull. Șt. Univ. Baia-Mare, seria B, Mat.-Inf., vol. VII, no. 1-2, 1991, 115-118.
40. *On a inequality*, Bull. Șt. Univ. Baia-Mare, seria B, Mat.-Inf., vol. VII, no. 1-2, 1991, p. 119-120.
41. *The use of Parameters method in the study of Gauss-Konrad Quadrature Formulae*, Proceedings of the Fifth Symposium of mathematics and its Applications, 29-30 October 1993, Timișoara, p. 9-13.
42. *New inequalities obtained by means of the quadrature formulae*, Bull. Șt. Univ. Baia-Mare, seria B, Mat.-Inf., vol. IX, 1993, p. 53-56.
43. *Some diophantine equations involving factorials*, General Mathematics,

2, no. 1, 1994, p. 35-37.

44. *On some diophantine equations of the type  $a^x b^y + 1 = z^2$* , General Mathematics, vol. 3., No. 1-2, 1995, p. 41-45.

45. *Formulas optimales atachées à la formule de quadrature du trapèz et à la formule de Simpson*, Studia Univ. "Babeş-Bolyai", ser. Math., fasc. 2, p. 9-15, 1996.

46. *On some exponential diophantine equations of the form  $a^x - b^y c^z = \pm 1$* , Anal. University of West (Timișoara), mathematics and Computer Sciences Series, vol. XXXIV, fasc. 2, 167-171, 1996.

47. *The Optimal Quadrature Formulae Concerning the Eficiency*, International Conference on Approximation and Optimization, 29 July - 1 August 1996, Cluj-Napoca, ICAOR, p. 139-146.

48. *On the inequality of Mathieu*, General Mathematics, vol. 4, 1996, p. 11-14.

49. *V-Optimal quadrature formulas of Gauss-Christoffel's type*, CALCOLO (Italy), vol. 34, p.125-133, 1997.

50. *On the D. D. Stancu method of parameters*, Studia Univ. Babeş-Bolyai, Seria Math., 1/1997.

51. *On the Calculus of the Trigonometric Functions Primitives*, Proceedings of the annual meeting of the Romanian Society of Mathematical Sciences, 29 May - 1 June Bucharest, 1997, vol. 2, 17-29 (in romanian).

52. *Evaluation of the remainder in an approximation formula of D. D. Stancu*, CALCOLO (Italy), vol. 35, p.191-196, 1998, (in cooperation with M. Boncuț and C. Cismașu).

53. *About some Diophantine Equations with Restrictions*, General Mathematics, vol. 7, no.1-4, p. 39-68, 1999.

54. *An integral representation of the Remainder in an Approximation For-*

*mula by a bivariate Operator Cheney-Sharma*, ROGER 2000 - Braşov, Proceedings edited by H. Goska, D. Kacso, L. Bontel, Univ. Duisburg, p.34-39, 2000.

55. *On the Exponential Diophantine Equation of the type  $a^x - b^y c^z = \pm 1$* , General Mathematics, vol. 9, no. 3-4 (2001), p. 45-54.

56. *About some properties of intermediate point in certain mean-value formulas*, General Mathematics, vol. 10, no. 1-2, 2002, p. 51-64 (in cooperation with Petrică Dicu)

57. *New Inequalities Obtained by Means of Quadrature Formulae*, General Mathematics, vol. 10, no. 3-4, 2002, 63-68.

58. *On the Tricomi's Quadrature Formula*, General Mathematics, vol. 11, no. 3-4 (2003), p. 35-44.

59. *Optimal Combined Quadrature Formulae in Schmeister's sense*, General Mathematics, vol. 12, no. 1 (2004), p. 35-42.

## II. Doctoral Thesis

*"Extremal Problem in Numerical Integration of Functions"*, Scientific Coordinator: Prof.univ.Ph.D. Dimitrie D. Stancu, University "Babeş-Bolyai" Cluj-Napoca, 1980, pp. 185 (in romanian).

## III. Papers about history of Mathematic and Mathematical Education

1. *On one problem of Number Theory*, Mathematics in School, p. 204-209, 1976, Bucharest (in romanian).

2. *The Generalization of one Problem of Analysis*, Mathematics in School, p. 210-211, 1976, Bucharest (in romanian).

3. *On Problem of Limits*, Mathematics in School, p. 212-214, 1976, Bucharest (in romanian).
4. *About one Method of Solving Irrational Equations*, Gaz. Math. 7, p. 265-267, 1977, Bucharest (in romanian).
5. *Gathered from Reviews and Again Given to People*, Gaz. Math. 7, p. 272-274, 1977, Bucharest (in romanian).
6. *The use of the Change of variable in Highschool Mathematics*, Mathematics in Gymnasium and Highschool Education, Bibl. SSM of RSR, vol. 6, p. 318-332, 1979 (in romanian).
7. *Sufficient Conditions For a Real Number Series to be in Progression*, Mathematics in Gymnasium and Highschool Education, Bibl. SSM of RSR, vol. 6, p. 349-355, 1979 (in romanian).
8. *About one Problem*, Gaz. Math. 1, 1979, Bucharest, p. 1-5 (in romanian).
9. *Problems for Primary School*, Gaz. Math. 4, 1979, Bucharest, p. 140-141 (in romanian).
10. *The Calculus of some Definite Integrals*, Gaz. Math. 8, 1980, Bucharest, p. 339-343 (in romanian).
11. *Scientifical and Methodical Aspects of the Subgroup-Group Relations Methodical*, Gaz. Math. (Mathematical and Methodological Improvement in Mathematics and Computer Science), no. 2-3, 1981, p. 67-69 (in romanian).
12. *I-IV, Osztályok részere kitűzöt feladatok*, Mat. Lapok, no. 6, 1981, p. 251-253.
13. *I-IV, Osztályok részere kitűzöt feladatok*, Mat. Lapok, no. 10, 1981, p. 396-397.
14. *Néhány Határozot integrábról*, Mat. Lapok, no. 12, 1981, p. 476-479.

15. *Green-Lagrange Identity and its Applications (I)*, Gaz. Mat. (Methodical and Methodological Improvement in Mathematics and Computer Science), 1-2, 1982, p. 46-49.
16. *On one Formula of Botez-Catalan*, Gaz. Mat. 4, 1982, p. 115-116 (in romanian).
17. *On one Liniar Recurence of First Order*, R.M.T., 2 (1983), p. 20 (in romanian).
18. *On one Functional Equation of Popoviciu Type*, Methodological Gaz. Mat., 3-4, 1984, p. 161-164 (in romanian).
19. *One Method for the Calculus of the Sums Same Powers of the First  $n$  Natural Numbers*, Gaz. Mat. 6, 1984, p. 211-212 (in romanian).
20. *One New Formula for the Calculus of the Sums Same Powers of the First  $n$  Natural Numbers*, Gaz. Mat. 8, 1985, p. 274-276 (in romanian).
21. *The Calculus of Some Sums using Combinations*, Gaz. Mat. 6, 1987, p. 214-216 (in romanian).
22. *Gathered from Reviews and Again Given to People*, Methodical Notebook, 1, 1987, p. 21-25, Sibiu (in romanian).
23. *About one inequality*, Gaz. Mat. 3, 1988, p. 97-98 (in romanian).
24. *About one integral*, Gaz. Mat. 1, 1989, p. 6-8 (in romanian).
25. *One Proof for the Riemann series convergence*, Gaz. Mat. 2, 1990, p. 46-47 (in romanian).
26. *About one Scheme of Obtaining some Inequalities*, Astra Matematică, vol. 1, no. 1, 1990, p. 6-7 (in romanian).
27. *Identification Method in the Calculus of some Sums using Combinations*, Astra Matematică, vol. 1, no. 1, 1990, p. 31-32 (in romanian).
28. *One Method of calculus of the  $n$ -order determinant*, Astra Matematică, vol. 1, no. 2, 1990, p. 7-13 (in colaboration) (in romanian).

29. *Tractions with Fraudulent Simplifications*, Astra Matematică, vol. 1, no. 3, 1990, p. 11-16 (in romanian).
30. *On one Problem by D. V. Ionescu*, Astra Matematică, vol. 1, no. 3, 1990, p. 24-26 (in romanian).
31. *On one Diophantine Equation*, Astra Matematică, vol. 1, no. 3, 1990, p. 27-28 (in romanian).
32. *Fractions with Fraudulent Simplifications II*, Astra Matematică, vol. 1, no. 4, 1990, p. 8-15 (in romanian).
33. *Fractions with Fraudulent Simplifications III*, Astra Matematică, vol. 1, no. 5, 1990, p. 9-17 (in romanian).
34. *About one Problem of Examination*, Astra Matematică, vol. 1, no. 6, 1990, p. 1-4 (in romanian).
35. *Proofs without words*, Astra Matematică, vol. 1, no. 2, 1990, p. 19-22 (in romanian).
36. *About one Problem*, Astra Matematică, vol. 1, no. 2, 1990, p. 37-40 (in romanian).
37. *Criptarithmic Problems*, Astra Matematică, vol. 1, no. 2, 1990, p. 37-40 (in romanian).
38. *About some Limits*, Gaz. Mat. 9, 1990, p.214-218 (in romanian).
39. *A new Generalization of One Problem by A. G. Ioachimescu*, Proceedings of mathematical Creativity, vol. 3, 1994, University of Baia Mare, p. 67-70.
40. *About one Integral*, Mathematical Year Book - 1995, vol. I (1998), "Răsunetul" Publishing House Bistrița, p. 13-16.
41. *On one type of Geometrical Inequalities*, Mathematical Year Book - 1995, vol. I, "Răsunetul" Publishing House, Bistrița, 16-17.
42. *On one Problem by A. G. Ioachimescu*, Gaz. Mat. 9, 1995, p. 418-421

(in romanian).

43. *One Hundred Years of Uninterrupted Publication (1895-1995)*, ASTRA (Braşov), 2, 1995 (in romanian).

44. *One Century of Uninterrupted Publication*, Foaia Poporului, 9/1995 (in romanian).

45. *ASTRA Association and Gazeta matematică Society*, Foaia Poporului (Peoples Paper), 9/1995 (in romanian).

46. *Gazeta Matematică Centenary (1895-1995)*, Mathematical paper, 6, 1995, Chişinău (in romanian).

47. *On the integral Calculus of Functions containing the Trinomial  $ax^2 + bx + c$* , Mathematical Year Book 1996 (1997), vol. II (2000), Bistriţa, 3-26 (in romanian).

48. *Calculus Algorithm of the Sums of Some Powers*, "Transilvania" Mathematical Review, Alba-Iulia, no. 6, 2001, p. 3-5 (in romanian).

49. *One Calculus Method for one class of Definite Integrals*, Proceedings of the Mathematical Creativity Seminar, Baia-Mare, vol. 10, 2001, p. 1-8.

50. *The Calculus of Some Definite Integrals*, Proceedings of the Mathematical Creativity Seminar, Baia-Mare, vol. 11, 2002, p. 1-8.

51. *One Simple Change of variables and the Calculus of some Definite Integrals*, Mathematical Year Book 1997/1998, vol. III (2002), Bistriţa, p. 14-20.

52. *About some Limits*, Mathematical Year Book 1998/1999, vol. III (2002), Bistriţa, p. 21-25.

53. *Mathematical Commemoration 2001*, Mathematical Year Book, vol. V (2002), Bistriţa, p. 25-40.

54. *On the Calculus of some Definite Integrals*, Gaz. Mat. 4, 2002, 150-154.

55. *Problems of Examinations*, Mathematical Year Book 2000, vol. IV

(2002), Bistrița, 172-179.

56. *Professor dr. Honnoris Causa Dimitrie D. Stancu, at his 75th birthday*, In colaboration with Al. Lupaș, General Mathematics, vol. 10, no. 1-2 (2002), p. 3-20.

57. *On the Sixtieth Birthday of Professor dr. Gheorghe Micula*, General Mathematics, vol. 12, no. 1 (2004), p. 3-4.

58. *Native Mathematicians of Transilvania from Yesterday and from Today*, Proceedings of the Sixth Annual Conference of Romanian Society of Mathematical Sciences, 23-25 May 2002, Sibiu (2003), 19-43.

59. *On Some Natural Numbers Sequences*, Mathematical Year Book 2003, vol. VI (2003), Bistrița, 31-35.

60. *Mathematical Anniversaries 2002*, Mathematical Year Book 2002, vol. II (2003), Bistrița, 43-78.

61. *Sibians Mathematicians*, RMT, 2003, p. 1-5.

62. *In Memory of Gheorghe Micula (1943-2003)*, General Mathematics, vol. 12, no. 1 (2004), 3-4

63. *On Some Diophantine Equations*, Mathematical Year Book 2003, vol. VII (2004), Bistrița 31-33.

64. *Mathematical Anniversaries and Commemorations 2003*, Mathematical Year Book 2003, vol. VII (2004), Bistrița, 35-70.

65. *Why Mathematical education?*, Educația Matematică, vol. 1, no. 1 (2005), 3-4 (in romanian).

66. *Miron Nicolescu (1903-1975) - our teacher*, Educația Matematică, vol. 1, no. 1 (2005), p. 34-56 (in romanian).

#### IV. Books



1. *Collection of Problems for Mathematical Competitions*, Mathematical Sciences Society Library from R.S.R., Bucharest, 1977 (book written in collective; coordinator: Acad. Nicolae Teodorescu) (in romanian).
2. *Problems of mathematics (given in 1994 to the Superior Education Admission)*, Ed. GIL ZALĂU 1995 (book written in collective; coordinator: Dorin Andrica), p. 218 (in romanian).
3. *Problems of Mathematics (given in 1995 to the superior education admission)*, Ed. GIL ZALĂU, 1995 (book written in collective; coordinator: Dumitru Acu), p. 382 (in romanian).
4. *Problems of Mathematics (given in 1996 to the superior education admission)*, Ed. GIL ZALĂU, 1995 (book written in collective; coordinator: Dorin Andrica) (in romanian).
5. *Arithmetic and Number Theory, Mathematical Monography*, ULBS Publishing House, 1999, p. 276 (in romanian).
6. *Mathematical Year Book 1995*, “Răsunetul” publishing House, Bistrița (scientific coordinators: Dumitru Acu și Dorin Andrica) (in romanian).
7. *Mathematical Year Book 1996/1997*, vol. II, SSMR, Bistrița, “G. Coșbuc” Publishing House, 2000 (in romanian).
8. *Mathematics Applied in Economy*, vol. I, ULBS Publishing House (in cooperation with M. Acu, P. Dicu, A. M. Acu), 2001 (in romanian).
9. *Mathematics Applied in Economy*, vol. II, ULBS Publishing House (in cooperation with M. Acu, P. Dicu, A. M. Acu), 2002 (in romanian).
10. *Mathematics Applied in Economy*, vol. III, ULBS Publishing House (in cooperation with M. Acu, P. Dicu, A. M. Acu), 2003 (in romanian).
11. *Mathematical Year Book 1998/1999*, vol. III, SSMR, Ed. “George Coșbuc”, Bistrița, 2002 (in romanian).
12. *Mathematical Year Book 1998/1999*, vol. IV, SSMR, Ed. “George

Coşbuc”, Bistriţa, 2002 (in romanian).

13. *Mathematical Year Book 1998/1999*, vol. V, SSMR, Ed. “George Coşbuc”, Bistriţa, 2002 (in romanian).

14. *Mathematical Year Book 1998/1999*, vol. VI, SSMR, Ed. “George Coşbuc”, Bistriţa, 2002 (in romanian).

15. *Proceeding of the Sixth Annual Conference for the Mathematical sciences Society from Romania*, Sibiu, 23-25 May 2002, vol. I (350 p.), vol. II (192 p.), Sibiu, 2003, editor together with A. Bucur, N. Secolean and E. Drăghici.

16. *Mathematics. Textbook for Xth form*, vol. I, Ed. Plus (Bucharest), 2001 (in cooperation) (in romanian).

17. *National Mathematics Olympiad*, Braşov, 2002, Enunciations, Standards and Solutions, Paralela 45 Publishing House, Braşov 2000 (in romanian).

18. *Mathematical Year Book 2003*, vol. VII, SSMR, Bistriţa, Ed. Alethia, 2004 (in romanian).

## V. Litographed textbooks

1. *Applied Modern Mathematics*, Part I, Numerical Analysis Elements, I.I.S. Baia-Mare, 1973 (in romanian).

2. D. Acu, F. Fornwald, *Operational Calculus and Applications. Laplace Transform*, I.I.S. Baia-Mare, 1976 (in romanian).

3. D. Acu, F. Fornwald, *The Real Numbers Set (Axiomatic dealt)*, I.I.S. Baia-Mare, 1976 (in romanian).

4. *Mathematical Anlysis Course*, Module III, Series 1978 and 1979, Module IV, Derivatives, 1979; Module V, Indefinite integral, 1980, I.I.S. Sibiu (in romanian).

5. *Superior Mathematics - for subengineers*, 1979 (in romanian).
6. *Collection of Problems - Mathematical Analysis*, vol. I, 1980, I.I.S. Sibiu (in romanian).
7. *Collection of Mathematical Analysis Problems*, vol. III, 1987 (in cooperation L. Lupaş) (in romanian).
8. D. Acu, C-tin Catrina, ş.a., *Methodical Notebook*, no. 1, Mechanics Faculty, Sibiu, 1987 (in romanian).
9. Al. Lupaş, D. Acu, C-tin Catrina, "*Gh. Lazăr*" *Mathematical Contest, problems, enunciations and solutions*, Insp. Şc. Sibiu, Subsidiary S.S.M. Sibiu, 1989 (in romanian).

## **VI. Other papers published in the mathematics field**

1. *Mathematics - Modern Science Tool*, Baia-Mare, no. 1-2, 1969, p. 18 (in romanian).
2. *Amusing Mathematics*, Gaz. Mat. 1, 1979, p. 9-10 (in romanian).
3. *Where is the mistake?*, Gaz. Mat. 3, 1979, p. 120 (in romanian).
4. *Where is the mistake?*, Gaz. Mat. 3, 1979, p. 140 (in cooperation) (in romanian).
5. *Szorongoztató matematika*, Mat. Lapok, 2, 1980, p. 78-79 (in romanian).
6. *Over 300 problems proposed for solutioning in mathematical reviews* (in romanian).
7. *Foreign Mathematicians Calendar*, Astra Matematică, vol. 1, no. 1, 1990, p. 54-55 (in romanian).
8. "*1990*", Astra Matematică, vol. I, no. 5, 1990, p. 46-48 (in romanian).

**Observation.** Except for the published papers and the communications

of mathematical nature, Prof. Ph.D. Dumitru Acu, the author of over 30 papers and communications in the fields of history and culture, some of these even published in the Academy volumes.

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