



Titus Petrila

A. PERSONAL HISTORY

Nationality: Romanian

Marital Status: Married (with Sonia)

B. ACADEMIC PREPARATION / EDUCATION

Ph.D. in Mathematics, 1971, University of Bucharest

Concentrations: Mathematical models in Fluid Dynamics

Dissertation: On the influence of the walls on the inviscid fluid flows

Advisor: Prof. Caius Jacob, member of Romanian Academy of Sciences

M. Sc. in Mathematics, 1965, University of Cluj

Concentrations: Numerical methods and languages of programming

Thesis: The algorithmic language Algol 60

Advisor: Prof. D. D. Stancu

Honours: Honour Diploma, The Republic Scholarship

C. PROFESSIONAL EXPERIENCE / EMPLOYMENT HISTORY

Scientific Secretary of the Romanian Academy of Scientists (Transylvania Branch), December 2008 – present.

Role:-Organizing the whole activity of AOSR in Transylvania;

-Representing AOSR (Transylvania branch) at different national or international meetings;

-Coordinating the Mathematics research Projects within AOSR, Transylvania Branch.

Aerospace Consulting – INCAS (National Institute for Aerospace Research), Bucharest, Romania, October 2011 – December 2012.

Full professor, University of Cluj-Napoca, Romania, March 1993 - October 2008.

Role: -Teaching undergraduate and graduate students (complex analysis, boundary value problems for P.D.E., rational and fluid mechanics, numerical analysis, integral equations, mechanics of continua, etc.);

- Director of research Projects in the field of “Mathematical Modelling for Fluid Dynamics”;
- Director of Multidisciplinary Projects on Blood Circulation, etc.;
- Director of Master Programme in the field of Fluid Dynamics;
- Adviser (Supervisor) of Ph.D. student theses work (Finalized Ph.D. Theses: ”Unsteady fluid flows past sharp profiles”-Dr. Polotca Ovidiu, ”Numerical methods for compressible fluid dynamics”-Dr. Peca Raul Serban, ”Viscous fluid flows produced by surface stress gradients”-Dr. Emilia Borsa, ”Dynamical systems for celestial mechanics” -Dr. Kovacs Barna, ”Algorithms for the study of free surface viscous fluid flows” -Dr. Tiberiu Ioana, ”Mathematical models and numerical simulation for Hemodynamics” -Dr. Balazs Albert)

Visiting Research Professor, University of Ballarat, Australia, February 2002 – September 2002

Role: -Supervisor on Multi-disciplinary Projects;

- Research on Mathematical Model for the Wind Vertical Turbines (Green Energy Programme);

Professor, Chulalongkorn University of Bangkok, Thailand, August 1996 - September 1997.

Role: -Teaching undergraduate and graduate students (complex analysis, special Chapters on P.D. and Integral equations, etc);

- Supervision of research on inverse boundary values problems with application to hydrodynamics.

Professor (Associated), “Vasile Goldis” West University of Arad, Romania, October 2001 – present.

Role:-Teaching graduate students (economy mathematics, biostatistics, etc.)

- Coordinating international contacts with other Universities worldwide;
- Supervision of multidisciplinary research;
- Scientific Director of the Romanian-Australian ”Issac Elias“ Foundation.

Associated professor, University of Cluj–Napoca, Romania, October 1990 - March 1993.

Role: -Teaching undergraduate and graduate students (fluid and rational mechanics, partial differential equations, numerical methods, etc.);

- Supervise master students theses work;
- Director of various research projects in Applied Mathematics, etc.

Associate professor, University of Constantine, Algeria, December 1972 - December 1974.

Role: -Teaching undergraduate and graduate students (calculus, complex functions, high algebra, ordinary differential equations);

- Making programs for the High Teaching network in Algeria;
- Rector’s consultant.

Assistant professor/Lecturer, University of Cluj–Napoca, January 1972 - September 1990.

Role: -Teaching undergraduate and graduate students (calculus, analytical and differential geometry, theory of functions, rational, mechanics, aerodynamics, differential equations, probabilistics, etc.);

- Supervise bachelor’s students theses work;
- Member in various research project teams, etc.

Assistant, University of Cluj–Napoca, December 1965 - December 1972

Role: -Teaching (Seminars for) undergraduate students (calculus, complex analysis, differential equations, rational mechanics, algebra, etc.).

D. PROFESSIONAL ACTIVITIES / SERVICE

Director of the Research Group in Mathematical Models and Numerical Algorithms Associated to the Free Surface Viscid or Inviscid Fluid Flows (Sponsored by CNC SIS), Romania, October 2006 – October 2008.

Role: -Supervise and coordinate the group work;
-Organize seminars for research;
-Teaching PH. D. students in multidisciplinary subjects;
-Manage 39.000 RON budget.

Director of the Multi-disciplinary Excellence Research Group in Mathematical Models for Blood Circulation (Sponsored by VIASAN), Romania, October 2006 – October 2008.

Role: -Supervise and coordinate the group work;
-Organize seminars for research;
-Teaching PH. D. students in multidisciplinary subjects;
-Manage 93.000 RON budget.

Director of the Center of Multi-disciplinary Research and Computational Natural Sciences (Sponsored by the World Bank), Romania, January 2000 - January 2003

Role: -Supervise job performance of 20 professionals;
-Manage 70.000 USD Center budget;
-Participate in hiring professionals and in development of the new laboratories;
-Conduct and lead Center meetings;
-Teaching PH. D. students in multidisciplinary subjects (Constitutive laws for materials, Theory of elasticity, Numerical and Computational methods for fluid dynamics, Environment-Green Energy, Mathematical models for natural sciences, etc.).

Head of the Department of Fluid Dynamics, Faculty of Mathematics, University of Cluj-Napoca, January 1990 - June 1992.

Role: -Supervise the whole activity of the Department and the job performances of 20 professionals;
-Conduct and lead departmental meetings;
-Organize seminars for research;
-Hiring professionals; -Making new curricula.

E. VISITING POSITIONS AND RESEARCH FELLOWSHIPS

Charles University of Prague (Czechoslovakia), October - December 1971

Faculte des Sciences de Besancon (France), April - May 1972

Summer Schools of Bressanone (Italy), June 1971, June 1972

Institute for Numerical Mathematics, University of Trondheim (Norway), January - December 1975

Tel-Aviv University (Israel), August - September 1988

University of Keele (Great Britain), May - June 1990

Technical University of Darmstadt (Germany), December 1990 - February 1991, May 1992, January 1994

University of California (USA), September 1991, September 1995, August 1998

University of Tsukuba (Japan), September 1993

University Chulalongkorn (Thailand), August 1996 - August 1997, November 2000, July 2003

University of Columbus (USA), July 2001, November 2001

Nova University of Florida (USA), June - July 2005, June - July 2006, January - February 2008, April - May 2008

Universidad Nacional de Ingenieria, Lima (Peru), January 2007, etc.

F. MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS

- American Mathematical Society (AMS)
- Gesellschaft fur Angewandte Mathematik und Mechanik (GAMM)
- EUROMECH
- Irish Mathematical Society
- Romanian Mathematical Society

G. GRANTS RECEIVED

- Romanian Research Grant CNCSIS (39.000 RON), 2006 - 2008
- Romanian Research Grant CEEEX (93.000 RON), 2006 - 2008
- National Council for Research and Excellence Grants Foundation (70.000USD), 2006
- World Bank Grant (100.000 USD), 2000
- University of Ballarat Research Grant (30.000 AUS\$), 2002
- Different Romanian Research Grants (30.000 RON), 1997 - 2004
- SOFOS Foundation Grants (3.000 USD), 1993 - 1994
- IREX Grant (2.000 USD), 1991

Etc.Etc.

H. PUBLICATIONS

(See the attached list)

I. RESEARCH IN PREPARATION

Numerical and computational methods for PDE of hematology. Applications in various practical problems.

J. CURRENT RESEARCH INTERESTS

- Mathematical models for blood circulation;
- Mathematical models for free surface problems of aerohydrodynamics and wind vertical turbines;
- Boundary element methods and their application in industrial problems.

K. PAPERS PRESENTED AT RECENT INTERNATIONAL CONFERENCES AND SEMINARS

“Caius Iacob” International Conference on Fluid Mechanics, Romania, 2012, 2013, 2014, 2015
“Various Mathematical Models and Numerical Simulations for the Blood Flow in Large Vessels”

Research Seminar, Chulalongkorn University, Thailand, 2000, 2003, 2006

Invited speaker: “A Complex Variables convergent Boundary Element Method”

“On the inverse (design) problem of a free surface gravity flow”

“A new approach for the inverse (free surface) problems in aerohydrodynamics”.

Research Seminars, ITMS, University of Ballarat, Australia, 2002, 2003

“Some new directions of research in mathematical modeling for fluid dynamics”.

The First International Conference on Mathematical Sciences, Al-Azhar University, Gaza, Palestina, 2006

Invited speaker: “A solution of the dynamical problem of the fluid flow on a plane plaque, considering the sliding phenomenon”.

International Conference on Applied Mathematics, Pitesti, Romania, 2001, 2002, 2003, 2004, 2005, 2012, 2014

Invited speaker: “New numerical techniques in approaching the fluid dynamics problems”

“Mathematical model for the free surface flow under sluice gates”

“Mathematical model of Helmholtz for a bucket turbine in the presence of gravity”,

“A new method for solving the free surface inviscid or viscous flows”.

International Conference on Applied and Industrial Mathematics, State University of Chisinau, Moldavia Republic, 2006

Invited speaker: “Complex Variables BEM and its application to free surface problems”.

ParCFD 2007, Turkey, 2007

“A Parareal Type Algorithm for a Class of Evolution Problems”.

Research Seminars, Columbus University and Nova University of Florida, USA, 2001, 2005, 2006, 2008

“New algorithms for solving direct and inverse BVP of hydrodynamics” Etc., Etc.

L. AWARDS

“Simion Stoilow” Prize of the Romanian Academy (1987) for the book “Finite element methods and applications”, (Metode element finit și aplicații) Bucharest, Publishing House of Romanian Academy of Sciences, 1987 (in Romanian, English summary & C. Gheorghiu).

“Gheorghe Lazar” Prize of the Romanian Academy (2005) for the book “Basics of Fluid Mechanics and Introduction to Computational Fluid Dynamics”, Springer USA, 2005 (& D. Trif), ISBN 0-387-23837-9.

M. LANGUAGES

Fluent in English and French

Can read Russian, Italian and Spanish

N. REFERENCES

Letters of Reference File are available upon request from:

TCG - Career Department - 53 Balfour St., Chippendale, 2008 NSW, Australia

P.O. Box 978, Strawberry Hills, NSW 2012

Tel.: + 61 2 8303 2425

Fax.: + 61 2 9319 5754

e-mail: pfritz@tcg.net.au

The following persons have written letters of recommendation on my behalf:

1. Prof. Gerard Labrosse, Laboratoire d'Informatique pour la Mecanique et les Sciences de l'ingenieur, Universite Paris-Sud XI, France, LIMSI – B.P., F-914080 RSA-CEDEX, e-mail: Gerard.Labrosse@limsi.fr
2. Prof. Harry Dwyer, Department of Mechanical, Aeronautical and Materials Engineering, University of Californian, Davis, USA, e-mail: hadwyer@ucdavis.edu
3. Prof. Petru Mocanu, Member of Romanian Academy of Science, Faculty of Mathematics and Computer Science, Babes-Bolyai University, 1, M. Kogalniceanu, 3400 Cluj-Napoca, Romania, e-mail: pmocanu@math.ubbcluj.ro
4. Prof. Touvia Miloh, Faculty of Engineering, Department of Fluid Mechanics & Heat Transfer, Ramat Aviv, Tel Aviv 69978, Israel, e-mail: miloh@eng.tau.ac.il

TITUS PETRILA

LIST OF PUBLICATIONS

Books:

1. Mathematical models for plane hydrodynamics. Searches on the influence of unlimited walls, (Modele matematice în hidrodinamică. Cercetări asupra influenței pereților nelimitați.) Bucharest, Publishing House of Romanian Academy of Sciences, 1981 (in Romanian, large French summary).
2. Finite element methods and applications, (Metode element finit și aplicații) Bucharest, Publishing House of Romanian Academy of Sciences, 1987 (in Romanian, English summary & C. Gheorghiu). **“Simion Stoilow” Prize of the Romanian Academy (1987)**
3. The mathematical heritage of C. F. Gauss, World Scientific Publishing Company, Singapore, 1991, p. 585-604. (On certain mathematical problems connected with the use of the complex variable boundary element method to the problems of plane hydrodynamics. Gauss' variant of the procedure).
4. Numerical and Computational methods for fluid dynamics (Metode numerice și computationale pentru dinamica fluidelor), Cluj-Napoca, Digital Data Publishing House, 2002 (in Romanian, English Contents & D. Trif), ISBN 973-82011-2-8.
5. Mathematical model for the air flow induced by a vertical wind turbine, SITMS, University of Ballarat, Victoria, Australia, sept. 2002, ISBN 1876-8510-23.
6. Computational Natural Sciences and Interdisciplinary Studies (Științe ale naturii computazionale și studii interdisciplinare), Cluj-Napoca, Digital Data Publishing House, 2003 (in Romanian & D. Trif, I. Mihoc, D. Dumitrescu, V. Simon & others), ISBN 973-82011-3-6.
7. Numerical and Computational Algorithms for practical problems, “Vasile Goldiș” University Press, 2004 (in Romanian, & S. Petrila, T. Mihoc).
8. Basics of Fluid Mechanics and Introduction to Computational Fluid Dynamics, Springer USA, 2005 (& D. Trif, Numerical Methods and Algorithms, volume 3), ISBN 0-387-23837-9. **“Gheorghe Lazar” Prize of the Romanian Academy (2005)**

PhD Thesis:

9. Sur l'influence des parois dans l'écoulement de fluides idéaux, (Asupra influenței pereților în mișcarea fluidelor ideale). Studii și Cercet. Matematice, 1972, t. 24, 3, p. 369-438 (Doctoral Thesis, French summary).

Students' text books:

10. Lectures on mechanics of continua, (in Romanian), University of Cluj-Napoca, 1980.
11. Mathematical complements in economics, “Vasile Goldiș” University Press (in Romanian), 2010 (& S. Petrila), ISBN 978-973-664-384-2.
12. Mathematics and Biostatistics lessons, “Vasile Goldiș” University Press (in Romanian), 2010 (& Ioan Ioja), ISBN 978-973-664-385-9.

Papers:

13. Sur les vibrations dans les châteaux d'équilibre, *Revue Roum. de Mathématiques pures et appliquées*, 1967, t. 12, 1, p. 151-160 (& A. Turcu).
14. Sur la déviation d'un jet par un obstacle symétrique (Asupra devierii unui jet de fluid ideal printr-un obstacol simetric), *Studii și Cercetări Matematice*, 1968, t. 20, 7, p. 1019-1024 (in Romanian, French summary).
15. Un algorithme pour la détermination des lignes de courant dans le mouvement plan autour des profils symétriques. (Un algoritm pentru determinarea liniilor de curent în mișcarea plană în jurul unor profile simetrice), *Studii și Cercet. Matematice*, 1968, t. 20, 7, p. 1030 (in Romanian, French summary).
16. Sur le mouvement général d'un profile en présence de deux parois arbitraires. Equations intégrales du mouvement. (Asupra mișcării generale a unui profil în prezența a doi pereți de formă oarecare. Ecuațiile integrale ale mișcării). *Studia Univ. "Babeș-Bolyai", Ser. Mathematica-Physica*, 1969, fasc. 2, p. 71-74 (in Romanian, French and Russian summaries).
17. Sur le mouvement général d'un profile dans un fluide idéal en présence d'une paroi infinie, *C. R. Acad. Sci., Paris*, 1970, t. 270, p. 1048-1050.
18. Sur la méthode du couple des profils pour l'étude d'un mouvement général d'un obstacle dans un fluide idéal en présence d'une paroi rectiligne, *C. R. Acad. Sci., Paris*, 1971, t. 272, p. 818-821.
19. Sur la méthode du couple des profils pour l'étude de l'écoulement d'un fluide idéal autour d'un profile arbitraire fixe, *C. R. Acad. Sci., Paris*, 1971, t. 272, p. 908-910.
20. Des méthodes pour l'étude de l'influence des parois sur l'écoulement fluide plan, *Laboratoire de Mécanique Théorique nr. 2360/1972, Faculté des Sciences de Besançon*, 1972.
21. Une nouvelle méthode pour l'étude de l'influence des parois sur l'écoulement fluide plan, *Rivista di matematica della Università di Parma*, 1973, 3, 2, p. 47-51.
22. Sur l'influence du sol sur l'écoulement plan autour d'une aile mince à jet, *Mathematica*, 1978, t. 20 (43), 1, p. 195-301.
23. Méthode pratique pour la détermination de l'écoulement produit par un déplacement d'un profile d'aile au point anguleux dans un fluide idéal, *Mathematica*, 1977, t. 19 (42), 2, p. 195-201.
24. On an integro-differential singular equation, *Revue de l'Analyse numérique et de la théorie de l'approximation*, 1977, t. 6, 2, p. 171-175.
25. Une nouvelle méthode pour l'étude de l'écoulement produit par le déplacement d'un système de n profils mobiles dans un fluide idéal, *Revue Roum. des Mathématiques pures et appliquées*, 1979, t. 24, 10, p. 1487-1504.
26. Mouvement général d'un profile dans un fluide idéal en présence d'une paroi perméable illimitée. Cadre variationnel et approximation par une méthode d'éléments finis, *Mathematica, Revue de l'Analyse numérique et de la théorie de l'approximation*, 1979, t. 8, 1, p. 67-77.
27. Sur l'écoulement plan irrotationnel d'un fluide idéal incompressible produit par le déplacement d'un profile déformable en présence d'une paroi illimitée. (Asupra mișcării irotațională a unui fluid ideal incompresibil animat de deplasarea unui profil deformabil în prezența unui perete nelimitat), *Studia Univ. "Babeș-Bolyai", Ser. Mathematica*, 1980, t. 25, 2, p. 13-15 (in Romanian, French summary).

28. Sur l'écoulement fluide tridimensionnel produit par la rototranslation dans la masse de fluide d'un corps rigide en présence d'une paroi illimitée, (Asupra mișcării fluide tridimensionale produse de rototranslația în masa de fluid a unui corp rigid în prezența unui perete nemărginit), Studia Univ. "Babeș-Bolyai", Ser. Mathematica, 1980, t. 25, 4, p. 3-10 (in Romanian, French summary).
29. Une nouvelle méthode pour le calcul de l'influence des parois sur l'écoulement fluide plan, Revue Roum. de Mathématiques pures et appliquées, 1980, t. 25, 1, p. 99-110.
30. The uniqueness of the classical solutions of the Navier-Stokes system for incompressible nonstationary flow, Studia Univ. "Babeș-Bolyai", Ser. Mathematica, 1981, t. 26, 3, p. 3-5.
31. Sur le calcul des corrections de compressibilité en régime nonstationnaire, (Asupra calculului corecțiilor de compresibilitate în regim nestăionar). Studii și Cercet. Matematică, 1982, t. 34, 6, p. 547-560 (in Romanian, French summary).
32. An approach to the inviscid rotational compressible flows, Preprint No. 1 of the Department of Mechanics of the University of Cluj, 1982, p. 44-63.
33. Generalized vortices and their use to the study of the compressible rotational flows, Mathematica, t. 24 (47), 1-2, 1982, p. 117-128.
34. A new attempt to solve the equations of ideal compressible flows, Preprint No. 6 of the University of Cluj, Itinerant Seminar on functional equations, approximation and convexity, 1984, p. 127-136.
35. Considerations on the internal FEM for Stokes model, Proceedings of the Conference on differential equations, Cluj, Nov., 1985, Preprint of the University of Cluj, 1986, p. 279-282 (& G. Gheorghiu).
36. Some examples of boundary value problems and integral equations treated by the complex analysis methods, Proceedings of the Conference on differential equations, Cluj, Nov., 1985, Preprint of the University of Cluj, 1986, p. 273-278.
37. Sufficient univalence conditions for functions defined outside of unit disk. Applications to the theory of airfoils. Preprint No. 5 of the Seminar on Geometric functions theory of the University of Cluj, 1986, p. 147-154 (& N. Pascu).
38. Mathematical model for the estimation of the walls influence on a rotational compressible flows, (Model matematic pentru evaluarea influenței pereților asupra mișcării fluidelor compresibile rotatorii), Preprint of the 1986 Symposium of the Naval Institute of the Constanta (in Romanian, & Sonia Petrila), 1986.
39. CVBEM for plane hydrodynamics, Proceedings of the Seminar of complex analysis, Cluj, Nov., 1986.
40. On the construction of a rototranslation – performing profile in a fluid by an inverse boundary problem, Studia Univ. Cluj-Napoca, Ser. Mathematica, vol. 32, 4, 1987, p. 41-46.
41. An improved CVBEM for plane hydrodynamics, Mathematica Revue de l'Analyse numérique et de la théorie de l'approximation, vol. XVI, fasc. 2, 1987, p. 149-157.
42. On an univalence criterion, Itinerant Seminar on Functional equations, approximations and convexity, Preprint Univ. "Babeș-Bolyai" Cluj-Napoca, 6, 1988, p. 257-260 (& N. Pascu and V. Pescaru).
43. New problems and techniques for the study of the fluid flow produced by a mobile profile, Preprint No. 1 of the Department of Mechanics of the University of Cluj-Napoca, 1989, p. 91-125.

44. On the application of complex variable boundary element method to the theory of profiles, Preprint No. 2 of the Department of Mechanics of the University of Cluj-Napoca, 1989, p. 75-89.
45. Some mathematical aspects about the complex calculus on close contours determining, Preprint No. 5 of the Seminar on Celestial Mechanics and Space Research of the University of Cluj-Napoca, 1989, p. 67-76.
46. A complex variable boundary element method and its use to the theory of profiles, Proceedings of the 4-th International Conference on Computational Fluid Dynamics, Univ. of California, Davis, 1991, p. 997-1003 (& K. Roesner).
47. Some sufficient univalence criteria for holomorphic functions and their use in plane hydrodynamics, *Revue de l'Analyse numérique et de la théorie de l'approximation*, t. 21, 1, 1992, p. 67-68.(& N. Pascu)
48. On a complex boundary element method for the "wall effect", *Studia Univ. "Babeş – Bolyai"*, XXXVI, 2, 1991, p. 95-100.
49. On a design of an airfoil in subsonic stream, *Revue Roumaine de mathématiques pures et appliquées*, 7, 1992, p. 649-661.
50. Some boundary elements techniques for Stokes flows, *Rev. de l'Analyse numérique et de la théorie de l'approximation*, t. 21, 2, 1992, p. 167-182 (& M. Kohr).
51. A numerical approach of Ossen and Stokes flows, Preprint No. 1 of the Department of Mechanics, 1992, p. 17-20 (& M. Kohr).
52. Certain hydrodynamical meanings for some results of complex analysis, Preprint No. 1 of the Department of Mechanics, 1992, p. 13-16.
53. A technique to construct a quasi-conformal mappings, Preprint No. 1 of the Department of Mechanics, 1992, (& N. Pascu), p. 7-12.
54. Velocity balance equation for a fluid mixture, *Revue de Mécanique pure et appliqué*, 1993, t. 38, 3, p. 277-282.(& C. Vamos)
55. Numerical Alternative Method Scheme for Burgers' Equation, *Revue de l'Analyse numérique et de la théorie de l'approximation*, t. 22, 1, 1993, p. 87-96 (& D. Trif).
56. An implicit time solver for the spatial high frequencies of the pseudospectral advection-diffusion systems, *Proc. of the 5-th International Symposium on CFD, Sendai*, vol. II, 1993, p. 429-433 (& D. Trif and G. Labrosse).
57. Correction in the dominant space method for the heat equation, *Revue de l'Analyse numérique et de la théorie de l'approximation*, t. 24, 1-2, 1995, p. 221-224 (& D. Trif).
58. A spectral matrix-free method for the nonstationary viscous incompressible flows, *Proceedings of the first Asian Conference on CFD, Hong-Kong University of Science and Technology*, vol. II, 1995, p. 435-440 (& D. Trif).
59. Almost explicit algorithm for the incompressible Navier-Stokes equations, *Proceedings of the IX laminar and turbulent flow Conference, Atlanta*, 1995, vol. 2, p.106-111, (& D. Trif).
60. An almost explicit algorithm for the incompressible Navier-Stokes equations, *First Joint Conference on modern applied mathematics, Ilieni, Romania*, 1995, *Pure mathematics and applications*, vol. VI, nr. 2,3 p. 279-285
61. New generalizations of the univalence criteria of Becker and Nehari, *Mathematica*, 37 (60), 1995, p. 183-188 (& Moldoveanu and Pascu).

62. An almost explicit algorithm for the incompressible Navier-Stokes equations, *Rev. Roum. de math. pure et appliques*, 6, 2, p.279-285, 1995 (& D. Trif).
63. A quasi-conformal extension of conformal mappings, (part I), *Mathematica*, 38 (61), 1996, p. 153-156 (& N. Pascu).
64. On the motion of a drop due to a surface tension gradient, *Proceedings of the International Conference on Approximation and Optimization – ICAOR, Cluj-Napoca*, vol. II, 1996, p.117-118 (& C. Gheorghiu).
65. Correction in the dominant space method for nonlinear evolution equations, the 3-rd International Congress on Industrial and Applied Mathematics, Hamburg, 1995, *Zamm*, vol. 76, supplement 2, 1996.
66. Correction in the dominant space method for nonlinear evolution equations, *Zeitschrift fur Angewalde Mathematik und Mechanik*, vol. 76, p. 691-692, 1996 (& D. Trif)
67. An analytic numerical algorithm for the incompressible Navier-Stokes equations in complex domains, *Proceedings of the Conference on Integral Methods in Science and Engineering*, Oulu, vol. II, 1997, p. 206-209 (& D. Trif)
68. An improved viscous step for a Navier-Stokes algorithm in complex geometries, *Rev. Roum. de math. pure et appl.*, t. XLII, 3-4, 1997, p. 311-318 (& D. Trif).
69. Spectral methods for parabolic problems, *Proceedings of the Scientific Communications, Meeting of the “Aurel Vlaicu” University of Arad*, 1997, p.119-128 (& E. Borsa).
70. CVBEM for the fluid flow determined by the motion of a dirigible balloon in a wind stream, *Rev. de l’Analyse numérique et de la théorie de l’approximation*, t. 27, 1, 1998, p.155-165.
71. On the inverse (design) problem of a free surface gravity flow, *Proceedings of the Conference on Integral Methods in Science and Engineering*, Michigan, 1998.
72. Mathematical model for the free surface flow under a sluice gate, *Proceedings of the Conference on Integral Methods in Science and Engineering*, Michigan, 1998.
73. Hodograph method for shock-freetransonic airfoil design, *Third Joint Conference on Mathematics and Computer Science held in Visegrad, Hungary*, 1999(& S Peca).
74. A numerical approach for a mathematical model for the free surface flow under a sluice gate, *Third Joint Conference on Mathematics and Computer Science held in Visegrad, Hungary*, 1999(& A. Muntean).
75. Aerodynamical profiles which admit continuous transonic flows, *Politehnica Timișoara, Analele Facultății de Inginerie din Hunedoara*, 1999, p. 131-140(& S. Peca).
76. On the Tricomi problem for canonical domains with prescribed singularities in elliptic domain, *Politehnica Timișoara, Analele Facultății de Inginerie din Hunedoara*, 1999, p.165-180 (& S. Peca).
77. Nonsteady fluid flows with variable circulation, *Politehnica Timișoara, Analele Facultății de Inginerie din Hunedoara*, 1999, p. 153-164 (in Romanian, & O. Poloțca).
78. Aerodynamical profiles in a multiform pressure field, *Politehnica Timișoara, Analele Facultății de Inginerie din Hunedoara*, 1999, p. 131-140 (in Romanian, & O. Poloțca).
79. The hydrodynamical approximation in the study of close binary systems, *Politehnica Timișoara, Analele Facultății de Inginerie din Hunedoara*, fascicola 4, 1999, p. 173-177(& R. Roman).
80. The relative motion in a non-stationary orbit, *Politehnica Timișoara, Analele Facultății de Inginerie din Hunedoara*, fascicola 4, 1999, p.177- 186(& R. Roman).

81. Asymptotic analysis for the flow of a thin layer of a viscous fluid in an inclined channel of an arbitrary section driven by a surface tension gradient, Politehnica Timișoara, Analele Facultății de Inginerie din Hunedoara, fascicula 7, 1999, p. 199-204(& E. Borșa)
82. Complex value boundary elements method for some mixed B. V. P., Studia Univ. Babeș-Bolyai, Seria Informatica, vol. 44, nr. 2, 1999, pg. 37-42.
83. Hydrodynamical remarks on the approach of close binary systems, Studia Univ. Babeș-Bolyai, Mathematica, vol. XLV, nr. 3, pg. 55-64, 2000 (& Rodica Roman)
84. On the inverse (design) problem of a free surface gravity flows, Revue Roumaine de Mathématiques Pure et Appliquées, 46(2001), 2-3, pg. 335-344.
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