

Curriculum Vitae

Personal Data

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Birthdate, Place November 27, 1972, in Dnepropetrovsk, Ukraine
Citizenship Ukraine
Marital Status, Children Married, two children
Languages English (Ukrainian, Russian - native)

Research Interests

Nuclear power safety. Multiscale numerical methods for engineering problems. Numerical and experimental methods for multiphase flows mechanics and heat-mass transfer. Heavy liquid metal nuclear reactors. Numerical methods on unstructured grid. Unstructured grid generation and adaptation. High order numerical schemes. Visualization. Incompressible and compressible viscose fluid flows. 3D vortex dynamics. Thermo-gravitational convection. Turbulence models. Hydrodynamics and heat-mass transfer problems with unstable and non-unique solutions. Aeroelasticity. Turbomachinery flows. Transonic flows with phase changes. Simulation of heat-mass transfer at combustion of coal powder fuel.

Education, Degrees

- 2003** *Certificate of Docent*, department of technical Mechanics
2000 *Candidate's Degree in Physics and Mathematics* (PHD), Specialization: Fluid Dynamics
The Dnepropetrovsk National University, Dnepropetrovsk
Dissertation: "Numerical simulation of hydrodynamics and heat transfer in problems with convective instability and nonunique solution.", 230 p. (in Russian)
<http://XOptimum.narod.ru/publications/dissertation/KudinovPI.pdf>
1995 *Graduated* from Dnepropetrovsk State University (Department of Mathematics and Mechanics)
Specialization: Aero-hydrodynamics

Professional Experience

- 2006-present** *Senior Researcher*
Royal Institute of Technology (KTH), Division of Nuclear Power safety,
Stockholm, Sweden
2001-2006 *Docent*
Dnepropetrovsk National University, Department of Technical Mechanics,
Dnepropetrovsk, Ukraine
2005-2006 (part-time) *Senior Research Fellow*, "Development of Second Ukrainian Youth Artificial Satellite"
Project.
Dnepropetrovsk National University, Physical-Technical Department,
Dnepropetrovsk, Ukraine
2003-2005 (part-time) *Senior Research Fellow*, "Development and investigation of high speed magneto-levitating transport" Project of STCU (Science and Technology Center of Ukraine).
Institute of Transport System and Technology, Ukraine National Academy of Science,
Dnepropetrovsk, Ukraine
2003-2006 (part-time) *Senior Research Fellow*
Institute of Geotechnical Mechanics, Ukraine National Academy of Science,
Dnepropetrovsk, Ukraine
2001-2006 (part-time) *Senior Research Fellow* "Development of numerical simulation methods for transonic flows in compressors and turbines" Project.
Zaporozhye Motor Design Bureau "Progress"
Zaporozhye, Ukraine
1998-2003 (part-time) *Chief designer of projects*
Institute of Geotechnical Mechanics, Ukraine National Academy of Science,
Dnepropetrovsk, Ukraine

1998-2001 Lecturer

Dnepropetrovsk National University, Department of Technical Mechanics,
Dnepropetrovsk, Ukraine

Recent projects and duties

- Reviewer for journal Nuclear Engineering and Design.
- Development of multiscale, multiphysics numerical methods for simulation of the debris bed formation in a light water reactor severe accident.
- Experimental program DEFOR on the debris bed formation in a light water reactor severe accident.
- PhD Project. NORTHNET RM3. Condensation and mixing phenomena in a BWR suppression pool.
- Project EUROTRANS. WP1.5, Task: Safety analysis of steam generator tube rupture.
- Project ELSY. Task 5.3 Safety analyses of plant accidents representative for design basis conditions. Task 6.3 SGTR at high pressure.
- PhD Project. SKC. Development of a Method for the Treatment of Two-Phase Flow Patterns in Nuclear Reactor Thermal Hydraulic CFD-Based Analysis.
- Development of meshless numerical algorithms for free surface flows.
- Development of numerical simulation methods on unstructured 3D meshes for transonic flows.
- Development of thermo-chemical preparation technology of coal fuel for effective combustion in boilers of thermo-power station.

Referees

- Truc-Nam Dinh, D.Sc., Professor, Director, Division of Nuclear Power Safety, Royal Institute of Technology (KTH), AlbaNova University Center, Roslagstullsbacken 21, D5, SE-106 91 Stockholm, Sweden. phone: +46-855378819, e-mail: namdinh@safety.sci.kth.se
- Leonid A. Dombrovsky, D.Sc., Professor, Institute for High Temperatures of the Russian Academy of Sciences, 17A, Krasnokazarmennaya, 111116, Moscow, Russia, e-mail: dombr@online.ru
- Valeriy I. Timoshenko, D.Sc., Professor, Academician of National Academy of Science of Ukraine, Deputy director, Institute of Technical Mechanics of National Academy of Science of Ukrainian, phone: 380-0562-461051, Dnepropetrovsk Ukraine, e-mail: timoshenko@itm3.dp.ua
- Sergey A. Isaev, D.Sc., Professor, Academy of Civil Aviation. St. Petersburg, Russia, e-mail: isaev@SI3612.spb.edu
- Vadim A. Lebiga, D.Sc., Professor, Head of Laboratory, Institute of Theoretical & Applied Mechanics, Russian academy of Sciences, Instyutskaya, 4/1, 630090, Novosibirsk, Russia, phone: (383-2)-303921, fax: (383-2)-342268, e-mail: lebiga@itam.nsc.ru
- Oleg G. Goman, D.Sc., Professor, Head of department of Aero-hydrodynamics, Dnepropetrovsk National University, Nauchny 13, 49050 Dnepropetrovsk, Ukraine. phone. +380-0562-466333.

List of publications**Monographs and Lecture Notes**

1. Kudinov P.I. Numerical simulation of hydrodynamics and heat exchange in problems with convective instability and nonunique solution. – Ph.D. Thesis in the field of physical-mathematical science – mechanics of fluid, gas and plasma. -Dnepropetrovsk national university, Dnepropetrovsk, 1999. 230p. (in Russian).
2. Kudinov P.I. Equations of gas dynamics one and two dimensional flows. Lecture notes. -Dnepropetrovsk national university, Dnepropetrovsk, 2002. -68p. (in Ukrainian).
3. Kudinov P.I., Yericheva V.A. Methodical manual for term work on applied gidro-gasodynamics // Methodical manual. -Dnepropetrovsk national university, Dnepropetrovsk, 2002. -19p. (in Ukrainian).
4. Avrahov F.I., Kudinov P.I., Prykhodko O.A., Syasev V.O. Laboratorial training on aerogidromechanics and hydraulic // Methodical manual. -Dnepropetrovsk national university, Dnepropetrovsk, 2000. -96p. (in Ukrainian).

Refereed Articles

1. Kudinov P. and Dinh N. An analytical study of mechanisms that govern debris packing in a LWR severe accident. The 12th International Topical Meeting on Nuclear Reactor Thermal Hydraulics (NURETH-12) Sheraton Station Square, Pittsburgh, Pennsylvania, U.S.A. September 30-October 4, 2007. Paper 247.
2. Kudinov P, Karbojian A., Ma W., Davydov M, Dinh T.-N. A Study of Ex-Vessel Debris Formation in a LWR Severe Accident. Proceedings of ICAPP 2007, Nice, France, May 13-18, 2007, Paper 7512
3. Karbojian A., Ma W., Kudinov P., Davydov M., Dinh N. A scoping study of debris formation in DEFOR experimental facility. 15th International Conference on Nuclear Engineering, Nagoya, Japan, April 22-26, 2007, Paper number ICON15-10620

4. Isaev S.A., Kudinov P.I., Kudravtsev N.A., Pyshnyi I.A. Numerical analysis of the jet-vortex pattern of flow in a rectangular trench // *Journal of Engineering Physics and Thermophysics*, Vol. 76, No. 2, 2003.
5. Kudinov P.I. Comparative testing of turbulence models of Spalart-Allmaras and Menter on the problem of transonic flow around single airfoil RAE2822 // *Bulleting of Dnepropetrovsk university. Mechanics*. -2004. Issue 8. -Vol.1. -P.34-42. (in Russian).
6. Kudinov P.I., Yericheva V.A. Numerical investigation of resonant regimes of aeroelastic oscillations of circular cylinder // *Bulleting of Dnepropetrovsk university. Mechanics*. -2004. Issue 8. -Vol.1. -P.43-50. (in Russian).
7. Prykhodko O.A., Kudinov P.I. Numerical simulation of unsteady interaction of moving cascades of compressor profiles and transonic flows with phase changes // *Aerodynamics: problems and prospect*. Kharkov: National Academy of Ukraine Kharkov Institute of Aviation. 2004. -P.93-111. (in Russian).
8. Kudinov P.I. Flow in elongated rectangular cavern with lid moving in different direction // *Bulleting of Dnepropetrovsk university. Mechanics*. -2003. Issue 7. -Vol.1. -P.33-38. (in Russian).
9. Kudinov P.I., Yericheva V.A. Aeroelastic oscillations of circular cylinder with two degrees of freedom // *Bulleting of Dnepropetrovsk university. Mechanics*. 2003, Issue.7. -Vol.1. -P. 39–45. (in Russian).
10. Kudinov P.I. Numerical investigation of spatial unstable flow in endless cavern // *Bulleting of Dnepropetrovsk university. Mechanics*. -2002. Issue 6. -Vol.1. -P.48-53. (in Russian).
11. Kudinov P.I., Yericheva V.A. Method of calculation of incompressible flows and algorithms for generation of hybrid unstructured grids // *Bulleting of Dnepropetrovsk university. Mechanics*. -2002. Issue 6. -Vol.1. -P.54-59. (in Russian).
12. Kudinov P.I. Realization of SIMPLE algorithms on unstructured grids // *Bulleting of Dnepropetrovsk university. Mechanics*. -2001. Issue 5. -Vol.1. -P.38-43. (in Russian).
13. Kudinov P.I., Yericheva V.A. Generation of unstructured grids for multiply-connected domains // *Bulleting of Dnepropetrovsk university. Mechanics*. -2001. Issue 5. -Vol.1. -P.44-48. (in Russian).
14. Kudinov P.I. Numerical simulation of spatial flows of viscid incompressible flows // *Bulleting of Dnepropetrovsk university. Mechanics*. -2001. Issue 4. -Vol.1. -P.89-99. (in Russian).
15. Dubina O.V., Baibuz A.G., Borodulin A.V., Vishnevsky B.N., Romanenko V.I., Khrutch V.K., Kudinov P.I., Olshansky V.M. About scientific supply of managerial decisions on reduction of power-consuming of production of ferrous metals // *Metallurgical heating engineering*. National Metallurgical Academy of Ukraine. Ukraine. -Dnepropetrovsk: 2001. -Vol.4. -P.173-190. (in Russian).
16. Kudinov P.I. Numerical simulation of development of separation flow behind cylinder at high Reynolds numbers // *Bulleting of Dnepropetrovsk university. Mechanics*. -2000. Issue 3. -Vol.1. -P.62-74. (in Russian).
17. Dzhigil A.I., Kudinov P.I., Khrutch V.K. Mathematical model of mass and cost fluxes and optimization of technological processes in petroleum refining // *Bulleting of Dnepropetrovsk university. Mechanics*. -2000. Issue 3. -Vol.1. -P.155-161. (in Russian).
18. Kudinov P.I. Structure of free convective flow in V-like domain at unstable stratification of liquid // *Bulleting of Dnepropetrovsk university. Mechanics*. -1999. Issue 2. -Vol.1. -P.38-48. (in Russian).
19. Kudinov P.I. Numerical simulation of unstable flow behind symmetrical sudden expansion // *Problems of computer techniques and structural strength*. -Dnepropetrovsk: Navchalna knyga. -1999. -Vol.5. -P.101-114. (in Russian).
20. Kudinov P.I. To the question about correctness of problem about flow behind symmetrical sudden expansion // *Prydniprovskiy scientific bulleting*. -Dnepropetrovsk. -1998. - №69(136). -P.58-60. (in Russian).
21. Koval V.P., Kudinov P.I. Movement of fluid with admixture in vortex chamber and its deterioration // *System technologies*. Dnepropetrovsk. -1998. -Issue 2. -P.39-49. (in Russian).
22. Kudinov P.I. Structure of free convection around rectangular rod in horizontal cylindrical tank // *System designing and analysis of characteristics of aerospace techniques*. -Dnepropetrovsk: Navchalna knyga. -1998. -Vol.1. -P.98-102. (in Russian).
23. Kudinov P.I. To the question of accuracy of calculation of convective flux in curvilinear coordinate system // *Problems of computer techniques and structural strength*. -Dnepropetrovsk: Navchalna knyga. -1998. -Vol.3. -P.82-85. (in Russian).
24. Kudinov P.I. Method of calculation of processes of hydrodynamics and heat exchange in non orthogonal curvilinear coordinats // *Bulleting of Dnepropetrovsk university. Mechanics*. -1998. Issue 1. -Vol.1. -P.117-124. (in Russian).

Invited Published Papers, Proceedings and Book Chapters

1. Kudinov P., Dinh T.-N. Particle-Based Methods for Fluid Dynamics Simulation. 2006 59th Annual Meeting of the APS Division of Fluid Dynamics, Tampa Bay, Florida USA.
2. Yericheva V.A., Kudinov P.I. Aeroelastic resonant oscillations of profile in steady and accelerated flow // *Proceedings of V International School-Seminar “Models and methods of aerodynamics”*. National Academy of Science of Russia, Institute of Hydromechanics of National Academy of Science of Ukraine, 5-14 June 2005, MCNMO: -p.49-50. (in Russian)
3. Kudinov P.I., Yericheva V.A. Application of multi-block unstructured grid for simulation of turbulent flows // *Proceedings of V International School-Seminar “Models and methods of aerodynamics”*. National Academy of

- Science of Russia, Institute of Hydromechanics of National Academy of Science of Ukraine, 5-14 June 2005, MCNMO: -p.77-78. (in Russian)
4. Kudinov P.I., Yericheva V.A. Simulation of unsteady transonic flows on movable unstructured multi-block grids // Proceedings of XV School-Seminar under leadership of academician A.I. Leontev. Vol.1. -Moscow: Publishing House of Moscow Energetic Institute. -2005. (in Russian).
 5. Yericheva V.A., Kudinov P.I. Semianalytic method for investigation of aeroelastic resonant oscillations of profile in flow of viscid gas // Proceedings of XII International Symposium "Methods of Discrete Singularities in Problems of Mathematical Physics" Kharkov-Kherson 2005. -p.126-130. (in Russian)
 6. Kudinov P.I., Yericheva V.A. Numerical methods for simulation of turbulent compressible flows on multi-block unstructured grids // Proceedings of XII International Symposium "Methods of Discrete Singularities in Problems of Mathematical Physics" Kharkov-Kherson 2005. -p.130-134. (in Russian)
 7. Kudinov P.I. Verification of turbulence models for simulation of transonic flows with separation // Proceedings of XII International Symposium "Methods of Discrete Singularities in Problems of Mathematical Physics" Kharkov-Kherson 2005. -p.185-189. (in Russian)
 8. Bulat A.F., Voloshin A.I., Kudinov P.I. Theoretical foundations of creation of plasma reactor for ignition of coal powder fuel // Proceedings of X Anniversary International Scientific Conference "Hydromechanics in Engineering Practice" Kramatorsk. 23-26 May 2005. (in Russian)
 9. Kudinov P.I., Yericheva V.A. Numerical Methods for Simulation of Compressible and Incompressible Flows on Unstructured Grids // Book of Abstracts of the Annual Scientific Conference GAMM 2004, Dresden, March 21-27, 2004. -p.175.
 10. Kudinov P.I. Numerical Study of Flow Structures and Stability in 3D Lid Driven Cavity and Trench // Book of Abstracts of the Annual Scientific Conference GAMM 2004, Dresden, March 21-27, 2004. -p.168.
 11. Bulat A.F., Kudinov P.I., Voloshin A.I. Numerical and Experimental Study of Heat Mass Transfer Processes at Burning of Coal Powder // Book of Abstracts of the Annual Scientific Conference GAMM 2004, Dresden, March 21-27, 2004. -p.178
 12. Kudinov P.I., Yericheva V.A. Numerical simulation of heat-mass transfer in cascades of turbine's and compressor's profiles on unstructured grids // Proceedings of V Minsk International Forum on Heat and Mass Transfer. Institute of Heat and Mass Transfer A.V. Lykova, 24-28 May, Minsk: National Academy of Science of Byelorussia. 2004. 8-24. 10 pp. (in Russian).
 13. Prykhodko O.A., Kudinov P.I., Pismenny V.I., Menaylov A.V. Numerical simulation of transonic gas-vapor flows with condensation // Proceedings of V Minsk International Forum on Heat and Mass Transfer. Institute of Heat and Mass Transfer A.V. Lykova, 24-28 May, Minsk: National Academy of Science of Byelorussia. 2004. 5-49. 10 pp. (in Russian).
 14. Bulat A.F., Voloshin A.I., Kudinov P.I. Mathematical simulation of processes of heat and mass transfer at plasma ignition of coal powder // Proceedings of V Minsk International Forum on Heat and Mass Transfer. Institute of Heat and Mass Transfer A.V. Lykova, 24-28 May, Minsk: National Academy of Science of Byelorussia. 2004. 4-04. 10 pp. (in Russian).
 15. Kudinov P.I., Yericheva V.A. Numerical simulation of transonic flows on movable multiblock unstructured grids // Proceedings of IV International School-Seminar "Models and methods of aerodynamics". 7-16 June 2004 г. Yevpatoria. Moscow.: MCIME, 2004. -P.71-73. (in Russian).
 16. Kudinov P.I. Numerical simulation of bifurcation of two dimensional and spatial vortex structures of viscid liquid // Proceedings of IV International School-Seminar "Models and methods of aerodynamics". 7-16 June 2004 г. Yevpatoria. Moscow.: MCIME, 2004. -P.70-71. (in Russian).
 17. Kudinov P.I., Yericheva V.A. Numerical Simulation of Air Pollution Transfer in Urban Areas // Book of Abstracts NATO ASI "Flow and Transport Processes in Complex Obstructed Geometries: from Cities and Vegetative Canopies to Industrial Problems", May 4-15, 2004. -p.119-120.
 18. Bulat A.F., Voloshin A.I., Kudinov P.I. Numerical and Experimental Study of Heat Mass Transfer Processes at development of technology of plasma ignition of Coal Powder // Industrial Heat Engineering. Vol.25. №4, 2003. -P.26-28. (in Russian).
 19. Kudinov P.I. Numerical investigation of stable and unstable regimes of spatial flows in rectangular trenches and caverns with moving lid // International scientific conference "Modern problems of mechanics" 26-28 September 2003 p. -P.29. (in Ukrainian).
 20. Kudinov P.I., Yericheva V.A. Numerical simulation of aeroelastic oscillation of circular cylinder in uniformly accelerated flow // International scientific conference "Modern problems of mechanics" 26-28 September 2003 p. -P.30. (in Ukrainian).
 21. Kudinov P.I. Numerical investigation of spatial flow in elongated cavern with moving lid // Proceedings of international conference "Computing technology in science, technology and education" Ust-Kamenogorsk, Kazakhstan, 11-14 September 2003. Part 2. -P.118-123.
 22. Kudinov P.I., Yericheva V.A. Aeroelastic interaction of circular cylinder with accelerated flow // Proceedings of international conference "Computing technology in science, technology and education" Ust-Kamenogorsk, Kazakhstan, 11-14 September 2003. Part 2. -P.124-131.

23. Kudinov P.I., Yericheva V.A. Mathematical simulation of resonant phenomena at aeroelastic oscillations of circular cylinder // Bulletin of Kherson State Technical University. Issue. 3(19). -Kherson: KSTU, 2003. -P.198-201.
24. Bulat A.F., Voloshin A.I., Kudinov P.I. Mathematical simulation of processes of heat and mass transfer in technology of plasma ignition of coal powder // Mathematical models in education, science and industry: -St.-Peterburg. 2003. -P.32-35. (in Russian).
25. Kudinov P.I., Yericheva V.A. Numerical method for calculation of transonic flows in cascades of profiles on hybrid unstructured grids // Problems of gasodynamics and heat and mass transfer in energetic plants: Proceedings of XIV School-Seminar of young scientist and specialists under leadership of academician A.I. Leontev. Vol.1. -Moscow: Publishing House of Moscow Energetic Institute, 2003. -P.81-84. (in Russian).
26. Kudinov P.I., Menaylov A.V., Pismenny V.I., Prykhodko O.A. Transonic flows of vapor with phase changes in elements of energetic plants // Problems of gasodynamics and heat and mass transfer in energetic plants: Proceedings of XIV School-Seminar of young scientist and specialists under leadership of academician A.I. Leontev. Vol.1. -Moscow: Publishing house of Moscow Energetic Institute, 2003. -P.255-258. (in Russian).
27. Bulat A.F., Voloshin A.I., Kudinov P.I. Technology of plasma preparing of coal powder fuel // Proceedings of III Russian National Conference on Heat Transfer. -Moscow: Publishing House of Moscow Energetic Institute. 2002. Vol.3. -P.173-176. (in Russian).
28. Kudinov P.I., Yericheva V.A. Application of algorithms on unstructured grids for calculation of problems of heat and mass transfer // Proceedings of III Russian National Conference on Heat Transfer. -Moscow: Publishing house of Moscow Energetic Institute. 2002. Vol.3. -P.186-189. (in Russian).
29. Zagny V.V., Kudinov P.I. Numerical methods for investigation of processes of heat mass transfear and aerodynamics of viscid gas // Physical foundations of experimental and mathematical simulation of processes of gasdynamics and heat transfer in energetic plants: Proceedings of XIII School-Seminar of young scientist and specialists under leadership of academician A.I. Leontev. Vol.1. -Moscow: Publishing House of Moscow Energetic Institute, 2001. -P.57-60. (in Russian).
30. Kudinov P.I. Numerical simulation of two-dimensional and spatial flows with stable and unstable stratification // Physical foundations of experimental and mathematical simulation of processes of gasdynamics and heat transfer in energetic plants: Proceedings of XIII School-Seminar of young scientist and specialists under leadership of academician A.I. Leontev. Vol.1. -Moscow: Publishing House of Moscow Energetic Institute, 2001. -P.149-152. (in Russian).
31. Prykhodko O.A., Kudinov P.I. Numerical simulation of stable and unstable thermo-gravitational circulation in enclosed volumes of arbitrary cross section // Proceedings of IV Minsk International Forum on Heat and Mass Transfer. Institute of Heat and Mass Transfer A.V. Lykova, 22-26 May, Minsk: National Academy of Science of Byelorussia. 2000. Vol I. Convective heat mass transfer. 2000. -P.36-43. (in Russian).
32. Kudinov P.I. SIMPLE methods on non staggered non orthogonal grid // Proceedings of First international conference "Science and Education 98". Dnepropetrovsk-Odessa-Kryvy Rig-Kyiv-Kharkiv-Dniprodzerzhinsk 23-30 April 1998. -Vol.10. -P.411. (in Russian).
33. Prykhodko A.A., Zinchenko A.V., Kudinov P.I. Effective methods for heterogeneous flows computations. Models, algorithms and results // "International Symposium on Advances in Computational Heat Transfer" Book of Abstracts May 26-30, 1997, Chesme, Izmir, Turkey, -P.315-316.
34. Prykhodko O.A., Zinchenko A.V., Kudinov P.I. Computer simulation of processes of mechanics of heterogeneous medium on the basis of package of applied programs // Proceedings of conference "Applied problems of mechanics of fluid and gas". -Sevastopol: Sevastopol State Technical University. -1997. -C.81. (in Russian).
35. Kudinov P.I. Increasing of effectiveness of algorithms for calculation of flows of incompressible liquid on the basis of equations of Navier-Stokes // Prydneprovsky scientific bulletin. -Dnepropetrovsk. -1997. -№ 24(35). -C.17. (in Russian).
36. Prykhodko O.A., Zinchenko A.V., Kudinov P.I. Technological aspects of development of multi-purpose solvers for the problems of mechanics of heterogeneous medium // Proceedings of V scientific-technical conference "Hydromechanics in engineering practice". - Kyiv-Cherkasy. 1997. - P.16-17. (in Russian).
37. Prykhodko O.A., Zinchenko A.V., Kudinov P.I. Mathematical simulation of discrete singularities in multiphase mediums // Proceedings of VII International Symposium "Methods of discrete singularities in problems of mathematical physics". Applied mathematics and mathematical simulation. -Kyiv: Institute of Mathematics National Academy of Science of Ukraine, 1997. -P.165-167. (in Russian).
38. Prykhodko O.A., Kudinov P.I. Perspectives of application of methods of mathematical simulation to solution of modern problems of water supply and disinfection of sewage // modern problems of water supply and disinfection of sewage. -Lviv: Lviv State Polytechnic University, 1996. -P.49. (in Ukrainian).
39. Prykhodko O.A., Kudinov P.I., Sankov P.N. Mathematical simulation of processes of heat mass transfer at development ecologically clear technology // Proceedings of 2 regional conference "Ecology and safety of human's activity". -Dnepropetrovsk: Pridneprovskaya State Academy of building and architecture, 1996. -P.50. (in Russian).

40. Prykhodko O.A., Zinchenko A.V., Kudinov P.I. Package of programs for simulation of heat mass transfer processes in multiphase mediums // Pridneprovsky Scientific Bulletin. -Dnepropetrovsk: 1996. -№ 9. -P.13. (in Russian).
41. Kudinov P.I. Numerical simulation of processes of heat and mass transfer of incompressible liquid in domains of complex geometry // Applied problems of mechanics of fluid and gas: Proceedings of 5-th scientific conference of Russia, Belorussia and Ukraine. -Sevastopol: Sevastopol State Technical University. -1996. - C.52. (in Russian).
42. Kudinov P.I. Comparison of methods of finite elements and control volumes in arbitrary curvilinear system of coordinates at numerical solution of Navier-Stokes equations // Pridneprovsky Scientific Bulletin. – Dnepropetrovsk. № 4. -1996. -P.41. (in Russian).
43. Kharitonov A.A., Kudinov P.I., Zagny V.V. Solution of problems of hydrodynamics by method of successive approaches // Proceedings of scientific conference Numerical methods in hydraulics in hydrodynamics.- Donetsk: Donetsk State University. -1994. -P.60. (in Russian).