

# Curriculum Vitae



## 1. Personal Data

**Name** Ivan V. Kazachkov  
**Date of birth** June 20, 1954  
**Living address** Apt. 36, Teremkivs'ka str., 11, Kyiv, 03187, Ukraine  
**E-mail** [Ivan.Kazachkov@energy.kth.se](mailto:Ivan.Kazachkov@energy.kth.se)  
**Marital Status, Children** Married, two daughters (born 1975 and 1976)  
**Languages** English - fluent, German – good, Swedish- moderate, Ukrainian, Russian - native.  
**Citizenship** Ukraine  
**Permanent residence and work permit in Sweden** since 2009 (Stromgatan 21 Lgh 1001 Uppsala 75431)  
[https://scholar.google.com.ua/citations?hl=uk&user=F4pjSpGAAAAJ&view\\_op=list\\_works](https://scholar.google.com.ua/citations?hl=uk&user=F4pjSpGAAAAJ&view_op=list_works)

## Research Interests

Mathematical simulation in continuum mechanics, stability and wave flows, nonlinear dynamical systems with time shifts and their control with applications to models of industrial and technological processes; multiphase flows with heat transfer, numerical methods in mechanics of continua, interactive teaching-learning methods (multimedia e-learning systems).

## Present employment

**August 2009 - present** *Professor, Head of Department Applied Mathematics and Informatics*, Nizhyn named after M. Gogol State University, Ukraine. Elected by competition.

**August 2012 – present** Head of the Project Board, United Science and Capital, Sweden, AB

**June 2011–present** Affiliated *Professor* at the Royal Institute of technology (KTH).

## Previous periods of employment

**Oct 2010 – August 2012** (part-time, 50%) *Professor, Head of Dept of Heat Power and Energy Saving*, State Academy of Municipal and Communal Economy, Kyiv, Ukraine. Elected by competition.

**March 2004 – August 2009** *Professor*, National Technical University of Ukraine (NTUU “KPI”), Chair of Nuclear Power Plants and Engineering Thermal Physics, Kyiv, Ukraine. Elected by competition.

**1995-March 2004** *Chief scientist* (also held position of *Head of Dept.* on System Analysis, 1996-1998). State Scientific and Technical Center on Nuclear and Radiation Safety of Ukraine, Kyiv. During 1998-2004 mainly on live to KTH (Sweden).

**1994-2000** (part-time, 50%) *Professor* in Mathematical Simulation at the Kyiv Land Forces Institute.

**1985-1995** *Leading Researcher (Research Professor*, since March 1989. Also held position of *Senior Researcher*, 1985-1989). Elected. Institute of Electrodynamics, Ukrainian Acad. Sci., Kyiv, Ukraine.

**1983-1985** *Senior Researcher*. Elected. Institute for Engineering Thermophysics, Ukr. Acad. Sci., Kyiv.

**1976-1983** *Junior Researcher*. Elected. (*Postdoc, also Engineer, Senior Engineer*, 1976-1981). V.M. Glushkov Institute of Cybernetics of Ukrainian Acad. Sci., Kyiv.

## Visiting positions

**June 2008–May 2011** Affiliated *Professor* at the Royal Institute of technology (KTH).

**April 2004–May 2008** Visiting *Professor* at the Royal Institute of technology (KTH, Stockholm).

**Dec 2002–March 2004** Guest *Professor* at the Royal Institute of technology (KTH, Stockholm).

**Jan-Nov 2002** *Senior lecturer* at HPT/EGI, KTH, by contract.

**Oct-Dec 1998, Jun 1999-Dec 2001**, Guest *Professor*, KTH, Stockholm. Research and teaching.

**1993-1995** (part-time) *Senior Lecturer* in Math. and Applied Statistics, Aggio Bank College, Kyiv. Also held a few other visiting positions.

## 2. Degrees, Assessments and Evaluations

### Academic degrees and titles

- 2011** *Certificate of Full Professor in Applied Mathematics and Informatics (scientific title)*. Awarded by Ministry of Education and Science of Ukraine.
- 1991** *Doctor of Sciences in Engineering (Full Doctorship)*, The Institute of Physics, Latvian Acad. Sci., Riga. Awarded by Supreme Attestation Committee of the USSR Ministry Council. Specialization: Mechanics of Fluid, Gas and Plasma. *Dissertation*: "Parametric Excitation and Suppression of Oscillations on the Interfaces of Continua", 464 pp.
- 1988** *Certificate of Senior Researcher (Habilitation for scientific title)*. Awarded by Presidium of the Academy of Sciences of the USSR. Specialization: Mechanics of Fluid, Gas and Plasma.
- 1981** *Candidate's Degree in Physics and Mathematics (PhD)*, The Kyiv T. Shevchenko National State University. Awarded by Supreme Attestation Committee of the USSR Ministry Council. Specialization: Mechanics of Fluid, Gas and Plasma. *Dissertation*: "Study of Turbulent Heterogeneous Mixing and Wall Protecting by Garnissage in Jet Devices", 138 pp.
- 1976** *MSc in Applied Mathematics and Mechanics. Specialization: Fluid Dynamics and Heat Transfer*. Graduated from Kyiv T. Shevchenko National State University.

### Evaluations of own scientific effort

**2008 – present** Associate Editor of the Int. Journals: WSEAS Trans. on FLUID MECHANICS and WSEAS Transactions on Environment and Development

**2005 – 2012** Member of Doctoral Scientific Committee of the National Technical University of Ukraine (NTUU "KPI").

**March 2005 – present** Deputy Chief editor for the Scientific Journal "Power Engineering"

**1998-2000** Member of the Doctoral Scientific Committee of the Kyiv Land Forces Institute.

Expert in the Fluid Dynamics and Heat ETransfer. Since 1993 participated in the evaluation committees of 30 PhD (and "Docent") and 7 Full D.Sc. defences including one PhD defence at the Royal Institute of Technology (KTH). Invited as a Guest Professor at KTH, is regularly member, and Session Chair, of International Scientific Committees for conferences.

**1998** Participation in the development and management of ecological program together with Ministry of Ecological Safety of Ukraine. Conception of Ukrainian Ecological Program was developed. Ecological MSc program was developed based on the new Ecological Program of Ukraine.

**1999-2003** Member of Science-Technical Committee "Thermophysics of radioactive matters by their elimination, keeping and isolation", Section of the Institute for Engineering Thermophysics of Ukrainian Academy of Sciences. Participation in committee work by assessment of the projects as scientific expert.

**1976-1991** Member of Inventor's Society of the USSR.

**Member Scientific Council** by evaluation of PhD thesis: Johan Carlsson "Inherent safety features and passive prevention approaches for Pb/Bi-cooled accelerator-driven systems" (2003, KTH, Stockholm).

**Scientific opponent** by Doctor of Sciences theses: Georgy N. Zabarny "Devices and processes for geothermal energetics on Kamchatka" (1996, NASU, Kyiv), Anatoly V. Suslov "Electrodynamical processes in high-temperature molten metals during powder production and surface adhering" (1998, NASU, Kyiv).

### Academic supervising experience

I have had rich supervising experience in Ukraine, which was already described above and is mentioned in the references enclosed. During 1983-1992 it was mainly supervision of research and engineering team and PhD students. Then during 1992-1999 I have also supervised many Master students being Professor of the Land Forces Institute and Kyiv Engineering Institute (mentioned in references). I have collected many ideas to propose as PhD projects. Some of them are already partially developed and need continuation, e.g. developed mathematical models of the processes, which can be used in simulation.

During 1999-2000 I have supervised Doctoral students Maxim Konovalikhin and Domenico Paladino at NPS/EGI and Mattias Hemlin at ERT/EGI as assistant supervisor in mathematical part of their theses with simulation of multiphase systems.

**Supervisor by PhD theses at NTUU “KPI”:**

Ali Hasan Moghaddam. Modeling of the core melt retention inside the containment during severe accidents at NPP (2009, NTUU “KPI”, Kyiv).

Vakhid Hasani Maghaddam. Thermal hydraulic features of the corium melt jet penetrating a water pool under reactor vessel during severe accidents (2012, NTUU “KPI”, Kyiv).

Ali Kalvand. Modeling of melting-solidification processes by corium melt cooling with low-temperature melted blocks (2013, NTUU “KPI”, Kyiv).

**Advisor by PhD theses at KTH:**

Maxim Konovalikhin. Investigations on melt spreading and coolability in a LWR severe accident (2001, KTH, Stockholm).

Domenico Paladino. Investigations on passive safety systems in LWRs (2004, KTH, Stockholm).

**Recent publications****Papers in internationally reputed periodicals which have been subject to referees' assessment.**

1. Kazachkov I.V. Parametric Excitation and Suppression of Oscillations at the Interfaces of Continua for the Processes' Control in Jet and Film Flows, Channel Flows with Phase Change and in Granular Media// JOURNAL OF THEORETICAL AND APPLIED MECHANICS 10:1-23 · JANUARY 2015.
2. Kazachkov I.V. The Theory and Applications of Parametric Excitation and Suppression of Oscillations in Continua: State of the Art/ Cornell University Preprint Series, Physics, fluid dynamics, USA. – 25 pages. Available at: <http://arxiv.org/abs/1510.06986>.
3. Konoval A.V., Kalvand Ali, Kazachkov I.V. Modeling of corium cooling and analysis of the factors for containment loading during severe accidents // J. Nuclear physics and energy. - 2013. - V. 14, № 3.- P. 30-37 (In Russian).
4. Ivan V. Kazachkov and Oleksandr V. Konoval. Non-linear mathematical models for the jets penetrating liquid pool of different density under diverse physical conditions and their simulation // WSEAS Trans. on Applied and Theoretical Mechanics.- 2013.- Vol. 8.- Issue 2.- P. 156-169.
5. Jamshid Gharakhanlou, Ivan V. Kazachkov, Oleksandr V. Konoval. Development and Investigation of the Mathematical Models for Potentially Hazardous Nuclear Power Objects with Deviated Arguments// WSEAS Trans. on Applied and Theoretical Mechanics.- 2013.- Vol. 8.- Issue 4.- P. 241-257.
6. Jamshid Garakhanlou, I.V. Kazachkov. Mathematical modeling of potentially hazardous nuclear power objects with shifted arguments// J. Nuclear and Radiation Safety.- 3 (55) .- 2012.- P. 21-26.
7. Jamshid Garakhanlou, I.V. Kazachkov. Development and Investigation of Aggregate Models for Nuclear Objects with Time Shifts// J. Nuclear and Radiation Safety.- 2 (54) .- 2012.- P. 36-41.
8. Ivan V. Kazachkov. Heat transfer and dynamics of the droplet on a superheated surface// WSEAS Transactions on Heat and Mass Transfer.- 2012.- Vol. 7.- Issue 2.- P. 47-57.
9. Ivan V. Kazachkov and Vakhid Hasani Mogaddam. Specific peculiarities of the jets penetrating the liquid pool of different density under severe accidents at the NPP conditions and their modeling and simulation// WSEAS Transactions on Applied and Theoretical Mechanics.- 2012.- Vol. 7.- Issue 4.- P. 276-287.
10. Kazachkov I.V., Konoval O.V. Modeling of spreading of the melted corium inside the pool of emergency heat removal during severe accidents at NPP// J. of Nuclear physics and energy.- 2012.- V. 13.- № 1.- P. 46-55 (In Russian).
11. Kalvand Ali, Kazachkov I.V. Modeling of the melt corium cooling inside the containment of the passive protection systems against severe accidents// Nuclear physics and energy.- 2012.- V. 13.- № 1.- P. 62-72 (In Russian).
12. Fransson T.H., Kazachkov I.V., Solomon M., Konoval O.V. Collaboration of the Swedish-ukrainian universities in the development and implementation of the interactive multimedia teaching-learning system// Scientific notes of the Nizhyn Gogol state university.- 2011.- №7.- P. 199-206.
13. Kazachkov I.V. A combined space discrete algorithm with a Taylor series by time for CFD// WSEAS Transactions on fluid mechanics.- Issue 1, Volume 6, January 2011.- P. 51-69.
14. Kazachkov I.V. Parametric Excitation and Suppression of Oscillations at the Interfaces of Continua for the Processes Control: Jet and Film Flows, Granular Media, Flow in a Channel with Phase Change// WSEAS Transactions on fluid mechanics.- 2011.- №3.- 26 pp.
15. Kazachkov I.V. The Mathematical Models for Penetration of a Liquid Jets into a Pool // WSEAS Transactions on fluid mechanics.- Issue 2, Volume 6, April 2011.- P. 71-91.

16. Vakhid Hasani Mogaddam, Kazachkov I.V. Melt jet spreading in a pool of volatile coolant// J. of Nuclear and Radiation safety.- Kyiv.- 2 (46).- 2010.- P. 19-26.
17. Vakhid Hasani Mogaddam, Kazachkov I.V. Modeling of the corium jet penetration under reactor vessel with volatile coolant// J. Atomic physics and energy.- Kyiv.- 2010, v. 11, № 2, P. 151 – 158.
18. Ivan V. Kazachkov. Blow-up regimes by non-isothermal gas/steam filtration through the underground particle layer with internal heat sources// International journal of geology.- 2009.- Issue 4, Volume 3.- P. 101-111.
19. Ali Kalvand, Kazachkov I.V. Peculiarities of the melting-solidification processes by sinking of the melting blocks into high-temperature corium melt// J. Nuclear Physics and Atomic Energy.- Kyiv.- 2009.- Vol. 10, issue # 2.- P.178-184 (In Russian).
20. Vakhid Hasani Mogaddam, Kazachkov I.V. On the modeling of bending perturbations of melt jets under reactor vessel water pool during severe accident at NPP// J. Nuclear Physics and Atomic Energy.- Kyiv.- 2009.- Vol. 10, issue # 3.- P.293-298 (In Russian).
21. Ali Kalvand, Kazachkov I.V. Problem of Corium Melt Coolability in Passive Protection Systems Against Severe Accidents in the Containment. Part 1// J. Nuclear and Radiation Safety.- Kyiv.- 2009.- Vol. 12.- N1.- P.34-41 (In Russian).
22. Ali Kalvand, Kazachkov I.V. Problem of Corium Melt Coolability in Passive Protection Systems Against Severe Accidents in the Containment. Part 2// J. Nuclear and Radiation Safety.- Kyiv.- 2009.- Vol. 12.- N2.- P.45-53 (In Russian).
23. Vakhid Hasani Mogaddam, Kazachkov I.V. Peculiarities of Corium Melt Jet Spreading and Fragmentation in Pool Coolant under Reactor Vessel during Severe Accidents at NPP// J. Nuclear and Radiation Safety.- Kyiv.- 2009.- Vol. 12.- N4.- P.47-55 (In Russian).
24. Ali Hasan Mogaddam, I.V. Kazachkov. Modelling of the corium melt interaction with water and vapour during severe accidents at NPP// 3<sup>rd</sup> WSEAS Int. Conf., Univ. of Cambridge, February.- 23-25, 2008.- P. 71-76.
25. Mogaddam A.H., Kazachkov I.V. *Retention of a corium melt inside the containment during severe accidents at NPP*// J. Energy: Technology, Ecology, Economics, 2007, №2, p. 13-21 (In Russian).
26. Kazachkov I.V. and Kazachkova E.I. *The method for numerical solution of the non-stationary hydrodynamic and heat transfer equations*// J. Energy: Technology, Ecology, Economics, 2007, №2, p. 65-71 (In Russian).
27. Kazachkov I.V. and Kazachkova E.I. *Application of fractional calculus to a solution of the heat transfer boundary problems*// J. Energy: Technology, Ecology, Economics, 2006, №1, p. 64-68 (In Russian).
28. Mogaddam A.H., Kazachkov I.V. *Simulation of the retention of corium inside the containment during the severe accidents at NPP*// J. Nuclear and Radiation Safety, 2006, №4, p. 45-60 (In Russian).
29. Aslhademi S.J., Kazachkov I.V. *In-vessel reactor thermal hydraulic processes in severe accidents*// J. Nuclear and Radiation Safety, 2006, №4, p. 70-86 (In Russian).
30. Kazachkov I.V. and Konovalikhin M.J. *Blow-up regimes for two-phase heat transfer in particle layer with internal heat generation*// J. Nuclear and Radiation Safety, 2006, №3, p. 19-27 (In Russian).
31. Kazachkov I.V. and Palm B. *Analysis of Annular Two-phase Flow Dynamics under Heat Transfer Conditions*// J. of Enhanced Heat Transfer. 2005, Vol. 12, no.1, p.37-58.
32. Kazachkov I.V. and Kazachkova E.I. *Non-stationary non-isothermal gas filtration in granular layer*// J. Energy: Technology, Ecology, Economics, 2005, №2, p. 12-21 (In Russian).
33. Kazachkov I.V. *Non-linear boundary conditions at the interface of two immiscible liquids*// J. Energy: Technology, Ecology, Economics, 2005, №3, p. 21-29 (In Russian).
34. Ivan V. Kazachkov, Olga M. Kazachkova. Local abnormal heating in granular layer due to non-linear heat conductivity// WSEAS HEAT AND MASS TRANSFER (HMT '05).- Paper 491-109.- 6 pp.
35. Ivan V. Kazachkov, Olga M. Kazachkova Parametric wave excitation-suppression on the interfaces in film flow and in channel flow solidifying on a wall// WSEAS FLUID MECHANICS (FLUIDS '05).- Paper 491-113.- 6 pp.
36. Kazachkov I.V., Chesnokov Ye.V. and Kazachkova O.M. *Modelling of Potentially Hazardous Objects with Time Shifts*// WSEAS Trans. on Business & Economics. 2004, Issue3, №1, p. 37-43.
37. Kazachkov I.V. *Modern status and problems of the simulation of severe accidents at NPPs*// J. Nuclear and Radiation Safety, 2003, №1, p. 25-35 (In Russian).
38. Kazachkov I.V. and Konovalikhin M.J. *A Model of a Steam Flow through the Volumetrically Heated Particle Bed*// Int. J. of Thermal Sciences.- 2002.- Vol.41, 1077-1087.
39. Kazachkov I.V., Konovalikhin M.J. and Sehgal B.R. *Dryout Location in a Low-porosity Volumetrically Heated Particle Bed*// J. of Enhanced Heat Transfer. 2001.- Vol.8, no.6, p.397-410.
40. Yang Z.L., Kazachkov I.V. and Palm B. *An Analytical Model on the Instability of Thin Film Flow Dynamics in a Micro-gap Channel*// J. of Enhanced Heat Transfer. 2001, Vol. 8, no.3, p.175-184.

41. Kazachkov I.V. *Electromagnetic wave excitation and suppression of films*// Magneto-hydrodynamics. vol.32, no.1; Jan.-March 1996; p.68-73. Translated from: Magnit. Gidrodin. 1996, no.1, p.74-80.
42. Kazachkov I.V. *Electromagnetic wave excitation and suppression of films*// Magnitnaya Gidrodinamika. 1996, no.1, p. 74-80 (in Russian).
43. Kazachkov I.V. *Unsteady nonisothermal seepage of steam in geothermal systems*// Journal of Mathematical Sciences, [Volume 60, Number 4 / July, 1992](#), P. 1576-1581.

### **Monographs, Lecture Notes and Book Chapters**

44. Begun V.V., Begun S.V., Kazachkov I.V., et al. *Glossary by safety culture on nuclear power plants*.- Kyiv.- NTUU "KPI".- Granma.- 2012.- 144 pp. (English-Russian-Ukrainian).
45. Begun V.V., Begun S.V., Kazachkov I.V., et al. *Safety culture on nuclear power plants of Ukraine*.- Kyiv.- NTUU "KPI".- Granma.- 2012.- 544 pp. (In Ukrainian).
46. Begun V.V., Begun S.V., Kazachkov I.V., et al. *Safety culture on nuclear power plants of Ukraine*.- Kyiv.- NTUU "KPI".- Granma.- 2012.- 568 pp. (In Russian).
47. Kazachkov I.V. *Numerical solution of the partial differential equations: from simple to complex and modern methods*.- WSEAS.- 2011.- 337 pp.
48. Kazachkov I.V. *Numerical continuum mechanics*.- Lecture notes.- Vol. 2.- KTH.- 2011.- 340 pp.
49. Begun V.V., Begun S.V., Kazachkov I.V., et al. *Safety culture on nuclear power plants of Ukraine*.- Kyiv.- NTUU "KPI".- 2009.- 386 pp. (In Russian).
50. Kazachkov I.V. and Kalion V.A. *Numerical continuum mechanics*.- Lecture notes.- Vol. 1.- KTH.- 2008.- 273pp.
51. Kazachkov I.V. and Ali Hasan Moghaddam. *Modeling the thermal hydraulic processes by severe accidents at the NPPs*.- Monograph.- Kyiv, NTUU "KPI".- Zhytomyr.- Polissya.- 2008.- 170pp. (In Russian).
52. Kalion V.A., Kazachkov I.V. and Shmakov Yu.I. *Rheology of complex fluid and blood flows*.- Lecture notes.- KTH.- 2004.- 99pp.
53. Victor Murdachi, Ivan Kazachkov, Juan Kessler, Marianne Salomón. *GEOHERMAL LECTURE NOTES. Renewable Energy Technology Course Lecture Notes* .- 2004.- Dept Energy Technology.- Royal Institute of Technology.- Stockholm, Sweden.
54. Kazachkov I.V. and Kalion V.A. *Numerical continuum mechanics*.- Lecture notes.- Vol. 1.- KTH.- 2002.- 273pp.
55. Kolesnichenko A.F., Kazachkov I.V., Vodyanuk V.O. and Lysak N.V. *Capillary MHD Flows with Free Surfaces*, Monograph, Naukova Dumka, Kiev, 1988, 176 pp. (in Russian).

### **Proceedings**

56. Jamshid Gharakhanlou, Oleksandr V. Konoval, Ivan V. Kazachkov. *About Development of the Aggregate Mathematical Models for Complex Non-Linear Systems with Deviated Arguments*/ Proc. 2014 Int. Conf. Mathematical Methods, Mathematical Models and Simulation in Science and Engineering.- Interlaken, Switzerland, February 22-24, 2014.- P. 42-46.
57. Ivan V. Kazachkov, Jamshid Gharakhanlou. *Modeling of Complex Heat Transfer Processes with Account of Real Factors and Fractional Derivatives by Time and Space*/ Recent Advances in Mechanical Engineering and Mechanics. Proc. 2014 Int. Conf. Mechanical Engineering (ME '14).- Venice, Italy, March 15-17, 2014.- P. 85-90.
58. I. V. Kazachkov. *The new phenomena on parametric jet/film flow control and their application to the problem of materials' granulation*/ ICLASS 2012, 12<sup>th</sup> Triennial International Conference on Liquid Atomization and Spray Systems, Heidelberg, Germany, September 2-6, 2012.
59. T. H. Fransson, I. V. Kazachkov, M. Salomon. *The life-long interactive computerized platform for the university collaboration in teaching-learning and research*/ ICLASS 2012, 12<sup>th</sup> Triennial International Conference on Liquid Atomization and Spray Systems, Heidelberg, Germany, September 2-6, 2012.
60. Ivan V. Kazachkov. *Parametric control in continua based on the new numerical approach*/ WSEAS Int. conf. APPLIED COMPUTER SCIENCE (ACS) - Plenary lecture.- 2010.- September.- Malta.
61. Roman Tomyak, Ivan V. Kazachkov and Torsten H. Fransson. *Case study tools in the multimedia interactive teaching-learning platform for energy technology*/ WSEAS Int. conf.- 2010.- September.- Malta.- 6p.
62. R. Tomyak, I.V. Kazachkov, T.H. Fransson. *case study tool as interactive learning material in computerized educational system*/ Conference of the Municipal academy.- Kyiv. 2010.- October.
63. Vahid Hasani Moghaddam and Ivan V. Kazachkov. *Multimedia adaptive interactive teaching-learning environment for energy technology*/ WSEAS Int. conf.- 2010.- September.- Malta.- 6p.
64. Vahid Hasani Moghaddam and Ivan V. Kazachkov. *About modeling of the corium jet penetrating the pool*/ WSEAS Int. conf.- 2010.- September.- Malta.- 6p.

65. Sergei V. Begun and Ivan V. Kazachkov. Modeling and simulation of the high-temperature jet's penetration behaviours in a pool of volatile coolant/ WSEAS Int. conf.- 2010.- September.- Malta.- 6p.
66. Sergei V. Begun and Ivan V. Kazachkov. Peculiarities of the local abnormal heat transfer due to non-linear heat conductivity and their influence on the steam (gas) non-isothermal filtration through the particles layer/ WSEAS Int. conf.- 2010.- September.- Malta.- 6p.
67. Geraimchuk I.M., Kazachkov I.V., Fransson T.H. Problems of the knowledge delivering in the educational systems (In Ukrainian)// National Dragomanov pedagogical university.- Kyiv.- 2010.- 10p.- By presentation at the International Tempus project conference by educational measurements.
68. Geraimchuk I.M., Geraimchuk M.D., Kazachkov I.V., Fransson T.H. Virtual university environment: swedish-ukrainian network for design and implementation of Internet-based education software// National Dragomanov pedagogical university.- Kyiv.- 2010.- 10p. By presentation at the International Tempus project conference by educational measurements.
69. Kazachkov I.V. Parametric Excitation and Suppression of Oscillations at the Interfaces of Continua// RECENT ADVANCES in CONTINUUM MECHANICS.- Plenary Lecture 8.- Proc. 4<sup>th</sup> IASME/WSEAS Int. Conf. on CONTINUUM MECHANICS (CM'09).- Cambridge, UK.- February 24-26, 2009.- p. 22, p. 114-119.
70. Kazachkov Ivan., Sergeichik Yevgen. Application of Combined Space Discrete Numerical Algorithm with a Taylor Series by Time for Simulation in Continua// Proc. 4<sup>th</sup> IASME/WSEAS Int. Conf. on CONTINUUM MECHANICS (CM'09).- Cambridge, UK.- February 24-26, 2009.- p. 120-125.
71. Ali Kalvand, Kazachkov Ivan. Modeling of Corium Melt Cooling During Severe Accidents at the Nuclear Power Plants// CM'09.- Cambridge, UK.- February 24-26, 2009.- p. 200-206.
72. Kazachkov I.V., Shirokov S.V., Begun V.V. On the estimation of safety culture in the aggregate models for development of potentially hazardous objects (Казачков И.В., Широков В.В., Бегун В.В. Об оценке культуры безопасности в агрегированных моделях развития потенциально опасных объектов)/ IV international applied scientific conference on npps safety culture, 11-12 november 2008.- Kyiv.- 9 pp. (In Russian).
73. Geraimchuk M.D., Kazachkov I.V., and Fransson T.H. *Development and implementation of multimedia educational systems for universities and schools/* Abstr. of the Conf. Development and Implementation of the Modern Educational Methods and Tools Based on the Mobile and Notebook Computers.- Kyiv: NTUU "KPI".- 2007.
74. Kazachkov I.V. *The new numerical method for solution of the non-stationary Navier-Stokes equations/* NTUU "KPI" scientific conference with international attendance.- Kyiv: 2007. – 17pp.
75. Sejed Aslkhademi, Ali Mogaddam, and Ivan Kazachkov. *Modelling of a Corium Progression in Reactor Vessel and Containment during Severe Accident at NPP/* CIEM2007, BUCHAREST, ROMANIA 22–23 of NOVEMBER 2007.
76. Alexey Bobkov, Ivan Kazachkov, Igor Kuznetsov. *To the Problem of Free Gas Flow Modeling in the Energy Efficient Stove for Private House and Office/* CIEM2007, BUCHAREST, ROMANIA 22–23 of NOVEMBER 2007.
77. Kazachkov I.V., Chesnokov Ye.V. and Kazachkova O.M. *Modelling of Potentially Hazardous Objects with Time Shifts/* Abstr. Of WSEAS Conf. on Business & Economics. 2004, Venice, Nov. 18-20, Italy.
78. Kazachkov I.V., Fransson T.H., Salomón M. and Kalion V.A. Interactive teaching and learning platform for numerical methods in energy/Proc. 41<sup>st</sup> Aerospace Sci. Meeting and Exhibit. Reno, Nevada 6 - 9 Jan 2003.- AIAA 2003-943.-10pp.
79. Kazachkov I.V., Fransson T.H., Salomón M., Abbes Y., and Kalion V.A. *Interactive teaching-learning in turbomachinery/* World Congress "Aviation in the XXI-st Century". Kyiv, Ukraine, 14-16 August 2003.- P. 7.9-7.19.
80. Kazachkov I.V. *Modelling the drop oscillation over hot plate/* Matlab conf. Denmark, Copenhagen, Oct 20-22, 2003.
81. Kazachkov I.V. *About localization of heating in granular layer with internal heat generation/* 4<sup>th</sup> Baltic Heat Transfer Conf., Lithuania, Aug. 25-27, Kaunas, 2003.
82. Park H.S., Kazachkov I.V., Sehgal B.R., Maruyama Y. and Sugimoto J. *Analysis of Plunging Jet Penetration into Liquid Pool in Isothermal Conditions/* ICMF 2001: Fourth International Conference on Multiphase Flow, New Orleans, Louisiana, U.S.A., May 27 - June 1, 2001.
83. Konovalikhin M.J., Kazachkov I.V. and Sehgal B.R. *A model of the steam flow through the volumetrically heated saturated particle bed/* ICMF 2001: Fourth International Conference on Multiphase Flow, New Orleans, Louisiana, U.S.A., May 27 - June 1, 2001.
84. Kazachkov I.V., Paladino D. and Sehgal B.R. *Ex-vessel coolability of a molten pool by coolant injection from submerged nozzles/* 9<sup>th</sup> Int. Conf. Nucl. Energy Devel. April 8-12, 2001. Nice, France.

85. Paladino D., Kazachkov I.V., Sehgal B.R. and Theerthan A. *DECOBI Experiments at RIT/NPS/ Second Half-Yearly Progress Meeting of ECOSTAR Project*. REZ-Czech Rep., Jan.31-Feb.2, 2001.
86. Haraldsson H.O., Kazachkov I.V., Dinh T.N. and Sehgal B.R. *Analysis of thin jet breakup length in immiscible fluids/ Abstr. 3<sup>rd</sup> Int. Conf. Adv. in Fluid Mechanics 2000, 24-26 May, Montreal, Canada.*
87. Park H.S., Kazachkov I.V., Sehgal B.R., Maruyama Y. and Sugimoto J. *Analysis of plunging jet penetration into liquid pool with various densities// Abstr. 3<sup>rd</sup> Int. Conf. Adv. in Fluid Mechanics 2000, 24-26 May, Montreal, Canada.*
88. Kazachkov I.V. Konovalikhin M.J. and Sehgal B.R. *Coolability of melt pools and debris beds with bottom injection// 2<sup>nd</sup> Japanese-European Two-Phase Flow Group Meeting, Tsukuba, Japan, 2000.*
89. Kazachkov I.V., Haraldsson H.O., Yang Z.L. and Sehgal B.R. *Instability analysis of the thin film flow dynamics in a micro channel// Abstr. 5<sup>th</sup> Int. Symp. Heat Transfer. Beijin, 2000.*
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