

CURRICULUM VITAE

JULIUS KAPLUNOV

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PERSONAL DATA

Born: December 15, 1961, Moscow

Marital status: Married, two children (1990, 2002)

EDUCATION AND DEGREES

- 1979 Diploma of Education. Moscow Mathematical School No. 444, Moscow.
- 1984 MSc (incl BSc) in Applied Mathematics. Moscow State University of Railway Engineering, Department of Applied Mathematics, Moscow (first class degree with distinction).
- 1988 PhD in Physical Applied Mathematics. The Institute for Problems in Mechanics, Academy of Sciences of USSR, Moscow (Supervisor: Professor A.L.Goldenveizer).
- 1993 DSc in Physical Applied Mathematics. The Institute for Problems in Mechanics, Russian Academy of Sciences, Moscow.
- 1997 Certified Full Professorship. Ministry of Education of Russia.

ACADEMIC APPOINTMENTS

- 1984 – 2000 Research Probationer, Junior Researcher, Researcher, Senior Researcher Grade A, Senior Researcher Grade B and Head of Elastic Shells Group. The Institute for Problems in Mechanics, Russian Academy of Sciences, Moscow.
- 2000 – 2005 Lecturer, Reader. Department of Mathematics, The University of Manchester, UK.
- 2005 – Professor. Department of Mathematical Sciences, Brunel University of London, UK.

ADMINISTRATION

- 2006 – 2009 Head of the Department of Mathematical Sciences, Brunel University of London, UK.
2006 – 2007 Coordinator of Brunel DTA in Mathematics.
2007 – 2008 Coordinator of Brunel RAE2008 submission in Applied Mathematics.
2012 – Member of Brunel REF panel

TEACHING

- 2000 – 2005 ***University of Manchester, Department of Mathematics. Courses taught:***
MT3241 Asymptotic Expansions and Perturbation methods, 3 hours per week;
MT2121 Multiple Integrals, Vector-Field Theory and Tensors, 5 hours per week;
MT2252 Mathematical Modeling and Presentation, course works, 2 hours per week;
MT5251 Wave Mechanics for MSc in Theoretical and Applied Fluid Dynamics, 1 hour per week;
Mathematics for Engineers, 3 hours per week;
Dynamics of Thin Shells, Special course for PhD students. 1 hour per week.
- Brunel University of London, Department of Mathematical Sciences. Courses taught:***
2006 – 2012 MA2915 Linear and Numerical Methods, part1 (including integral transforms, Fourier series, and linear PDE's), 5 hours per week;
MA3610 Ordinary and Partial Differential Equations, 3hours per week;
Final Year Projects in Physical Applied Mathematics and Financial Computing/Mathematics;
Solid Mechanics including Elastic Wave Propagation, 2 hours per week (an advanced course at London Taught Course Centre).
- Keele University, School of Computing and Mathematics. Courses taught:***
2012 - MAT-20004 Vector Calculus 3 hours per week;
MAT-30028 Perturbation Methods, 3hours per week.

VISITING POSITIONS

- 01/04/92-1/07/92 Visiting Scholar. Department of Solid Mechanics, Materials, and Structures, Tel-Aviv University, Israel.
- 01/05/93-01/10/94 Humboldt Fellow. Technical University of Munich, Germany.
01/03/97-01/08/97
15/03/10-14/06/10
- 13/07/98-2/08/98 Visiting Royal Society Fellow. Division of Mathematics, University of Salford,
25/10/98-5/11/98 UK.
- 30/06/08-1/07/08 Visiting Professor. Laboratory of Mechanics and Physics of Solids, University of Bordeaux-1, France.

- 5/03/09-14/06/10 Visiting Professor. Department of Mathematical and Statistical Sciences,
University of Alberta, Canada.
- 15/01/10-4/03/10 Visiting Professor. Department of Mathematics, City University of Hong Kong.

AWARDS AND HONOURS

- Alexander von Humboldt Fellowship (1992);
- Visiting Professor, University of Ljubljana (1995);
- Russian State Fellowship for Outstanding Scientists (1997);
- Russian State Annual Prize in Science and Technology (1998), given for *Mathematical problems in thin walled structures*;
- Russian Presidential Fellowship for Young Professors (younger than 40) (1998);
- Distinguished Visiting Professor, Saratov State University, Russia (2001);
- Fellow of the Institute of Mathematics and Its Applications, UK (2006);
- Article '*Eigen-value of semi-infinite elastic strip*' (jointly with A.Pichugin and V.Zernov) is a Board Member's Favourite in Proc Roy Soc London A (2006-2007); see review by A. N. Norris
<http://www.pubs.royalsoc.ac.uk/index.cfm?page=1444> and <http://publishing.royalsociety.org/index.cfm?page=1791>
- Co-Organizer of London City Seminar on Solid Mechanics and Waves (together with Prof C.R.Craster, Imperial College of London and Prof V.P.Smyshlyaev, UCL)

EDITORIAL DUTIES

- Mathematics and Mechanics of Solids (Member of the Editorial Board)
- International Journal on Mechanics of Time-Dependent Materials (Member of the Editorial Board)
- Steigmann, D. (ed.), Kaplunov, J.D. (ed.), Special issue dedicated to Prof Erich Reissner, J. Appl. Math. Phys. (ZAMP) 51, No.4, 507-649 (2000).
- Special issue: Dynamic Edge Phenomena on Elastic Structures, Math. Mech. Solids 17, No.1, 1-80 (2012). Guest Editors; Jane B Lawrie and Julius Kaplunov.
- Slovenian Journal of Mechanics (Member of International Advisory Board, <http://en.sv-jme.eu>)
- Russian Journal of Science and Technology of Transport (Member of the Editorial Board, <http://ntt.rgotups.ru>)

CONFERENCE ORGANISATION

- 1999 Symposium on Mathematical Methods in Solid Mechanics, dedicated to the late Professor Eric Reissner, 3rd ICIAM, Chairman, Edinburgh, UK.
- 2000 3rd International Conference on Mechanics of Time-Dependent Materials. Member of the International Scientific Committee, University of Erlangen, Germany.
- 2002 EUROMECH Colloquium No. 439 on "Mathematical Modeling of the Dynamic Behavior

- of Thin Elastic Structures”. Co-Chairman, Saratov State University, Russia.
- 2003 4th International Conference on Mechanics of Time-Dependent Materials. Member of the International Scientific Committee, Lake Placid, USA.
- 2005 5th International Conference on Mixed Problems in Mechanics. Member of the Scientific Committee. Saratov State University, Russia.
- 2007 EUROMECH Colloquium No. 481 on “Recent advances in the theory and application of surface and edge waves”. Co-Chairman, Keele University, UK.
- 2008 British-French GDR workshop “Waveguides: scattering by bends, cross-sectional changes and defects”. Co-Organiser, Brunel University, UK.
- 2009 9th International Conference on Vibration Problems. Member of the International Scientific Committee, IIT Kharagpur, India.
- 2010 11th Pan-American Congress of Applied Mechanics. Member of the International Scientific Committee, Foz do Iguaçu, Paraná, Brazil.
- 2010 Workshop on Advances in Structural Mechanics and Vibroacoustics, Co-Organizer, Technical University of Munich, Germany.
- 2011 International Conference “Continuum Mechanics and Related Problems of Analysis”, dedicated to the 120-th anniversary of Professor N. Muskhelishvili. Member of the International Scientific Committee. Tbilisi, Georgia.
- 2012 Advanced Course “Dynamic Localization Phenomena in Elasticity, Acoustics and Electromagnetism”. Coordinator (together with Prof R.V.Craster). CISM, Udine, Italy.
- 2012 8th International Conference on Mechanics of Time-Dependent Materials. Member of the International Scientific Committee, Kanazawa Institute of Technology, Japan.
- 2012 International Conference on Computational Mathematics, Computational Geometry and Statistics (CMCGS 2012). Member of the Program Committee, Singapore.

GRADUATE STUDENTS

- 11 PhDs (1996-present including 4 completions in Russia, 1 completion in The University of Manchester, 5 completions in Brunel University and 1 current student in Keele University),
- 3 DScs (2002, 2004 and one current overseas fellow),
- 2 MScs (2002, 2005).

POSTDOCTORAL FELLOWS

- Dr A. Pichugin (2002-2003; EPSRC)
- Dr M. V. Wilde (2002-2003; INTAS)
- Dr E. Nolde (2003-2006; EPSRC, jointly with Prof G. A. Rogerson)
- Dr D. A. Prikazchikov (2006-2008; Russian Ministry of Railway Transport)
- Dr M. Akhmad (2008-2009; Pakistan Ministry of Education)
- Dr B.Erbas (2009-2011; Turkey Ministry of Education)
- Dr S. Choundhary (2010- 2011; British Council)

RESEARCH GRANTS

- 2001-2003 NATO-Russia Collaborative Linkage Grant. *A dynamic investigation of rock layers to prevent catastrophe*. Universities of Manchester and Salford, Research Institute of Comprehensive

- Exploitation of Mineral Resources, Russian Academy of Sciences, Ural Mining Institute of the Russian Academy of Sciences, Perm.
- 2001-2008 LMS grants to support Professors B.F.Shorr and Y.A.Ustinov visits to Manchester University and Dr E.Its visit to Brunel University.
- 2002-2003 EPSRC Post Doctoral Research Fellowship (GR/R53692/01). *Quasi-fronts in incompressible pre-stressed plates subject to edge point loading*.
- 2002-2003 INTAS Post-Doctoral Grant (YSF 2001/1-7) for Dr M.V.Wilde, Saratov State University. *Edge and interfacial vibration of thin structures*.
- 2003-2007 EPSRC Post Doctoral Research Fellowship (GR/S29751/01) *Justification and refinement of initial value problem for long-wave models in thin structures* (together with G.A.Rogerson).
- 2003-2004 EPSRC Visiting Fellowship (GR/S11916/01) *An asymptotic methodology for non-adiabatic interaction in weakly inhomogeneous elastic wave-guides* (together with G.A.Rogerson).
- 2004-2005 British Council. UK-Slovenia Partnership in Science.
- 2006-2007 EPSRC Visiting Fellowship (EP/D038812/2) *Wave propagation in anisotropic solids with a weak spatial dispersion* to support Prof A.G.Every four-month visit to Brunel University (together with G.A.Rogerson).
- 2007-2012 Strategic Network with Saratov State University, Russia to support PhD, MPhil and MSc students at Brunel and initiate staff training and exchange programs.
- 2008-2009 EPSRC Visiting Fellowship (EP/G000972/1) *Exact solutions for elastic surface waves with general lateral dependencies in layered structure* ((together with G.A.Rogerson).
- 2009-2010 EPSRC Visiting Fellowship (EP/H021302/1) *High-frequency long-wave behavior in elastic waveguides with arbitrary cross-section* (together with E.Nolde).
- 2011 - 2014 Industrial collaborative project with AMSTED Rail, USA including support of a PhD student at Keele to work on Nonlinear Inverse Problems in Railway Dynamics.

RECENT AND FORTHCOMING INVITED TALKS

Applied Seminar. Department of Mathematics, University College London, UK (10 March 2008).

50th British Applied Mathematics Colloquium, Symposium dedicated to Professor A.J.M Spencer, FRS. University of Manchester, UK (31 March - 3April 2008).

International Conference on Applied Mathematics: Modeling, Analysis and Computation. City University of Hong Kong, Hong Kong (1-5 June 2008).

Research Seminar. Laboratory of Mechanics and Physics of Solids. University of Bordeaux-1, France (15 July 2008).

Differential Equations and Applications Seminar. Mathematical Institute, University of Oxford, UK (20 November 2008).

9th International Conference on Vibration Problems. *Keynote Lecture*. Indian Institute of Technology Kharagpur, India (19-22 January 2009).

Applied Seminar. School of Computing and Mathematics, Keele University, UK (25 February 2009).

GDR Workshop on Edge Resonances. INRIA, Paris, France (15-16 April 2009).

Research Seminar. Bath Institute for Complex Systems, UK (1 June 2009).

Research Seminar. School of Mathematics. National Institute of Ireland Galway, Ireland (8 July 2009).

Theoretical and Applied Mechanics Seminar. University of Alberta, Canada (23 September 2009).

Mathematical Physics Seminar, Department of Mathematical Sciences, Indiana University-Purdue University, USA (8 December 2009).

Seminar on Mathematical Analysis and its Application by Ph.Ciarlet and R.Wong, City University of Hong Kong (24 February 2010).

2nd International Conference “Topical Problems of Continuum Mechanics”. *Plenary Lecture*. Dilijan, Armenia (4-8 October 2010).

Research Seminar. School of Mathematics and Statistics. University of Glasgow, UK (4th July 2011).

2nd Annual International Conference of Georgian Mathematical Union. *Plenary Lecture*. Batumi, Georgia (15th 2011).

Seminar. AMSTED Rail, Research & Development Department, Granit City, USA (3rd October 2011).

Research Seminars. Department of Mathematics, Anadolu University, Turkey (2nd and 3rd November 2011).

Departmental Seminar, Departmental of General Mechanics, RWTH Aachen, Germany (13th February 2012).

Departmental Seminar, Department of Mathematical Sciences, Indiana University-Purdue University, USA (1st March 2012).

Elasticity Day, Department of Mathematical Sciences, Liverpool University, *Keynote Lecture* (5th May 2012).

InnoWave 2012, Department of Mathematical Sciences, Nottingham University (3-7 September 2012).

Departmental Seminar, Department of Mathematical Sciences, University of Southampton, UK (25th September 2012).

International Conference "Shell and Membrane Theories in Mechanics and Biology: From Macro- to Nanoscale Structures”, *Plenary Lecture*. Belorussian State University, Minsk (September 2013).

12th Conference on Dynamical Systems - Theory and Applications. *Plenary Lecture*, The University of Lodz, Poland (December 2013).

RECENT EXTERNAL EXAMINING

PhD Keele University (2004, 2008, 2012), University of East Anglia (2005), Salford University (2005), Glasgow Caledonian University (2006), Imperial College (2006), University North Bengal (2009), RWTH Aachen (to be expected in November 2012), University of Le Mans (to be expected in December 2012).

DSc (Habilitation) Pierre and Marie Curie University Paris-6 (2007).

MPhil Southampton University (2011).

PROFESSIONAL SOCIETIES

London Mathematical Society

Institute of Mathematics and its Applications (*Brunel University Representative*)

Isaac Newton Institute for Mathematical Sciences (*Brunel University Representative, 2006-2009*)

RESEARCH INTERESTS

Multiscale Modeling, Asymptotic and Hybrid Methods, Continuum Mechanics including Thin Elastic Shells and Fluid-Structure Interaction, Wave Propagation.

LIST OF PUBLICATIONS

BOOKS

- J.D.Kaplunov, L.Yu.Kossovich, and E.V.Nolde. *Dynamics of Thin Walled Elastic Bodies*. Academic Press, N. -Y., 1998, 226 p.
- M.V.Wilde, J.D.Kaplunov, and L.Yu.Kossovich. *Edge and Interfacial Resonance Phenomena in Elastic Solids*. Physmathlit, Moscow, 2010, 279 p.
- C.R.Craster and J.Kaplunov (Editors). *Dynamic Localization Phenomena in Elasticity, Acoustics and Electromagnetism*. CISM Lecture Notes. Springer (to appear in 2013).

OTHER PUBLICATIONS

110. J.Kaplunov, D.A.Prikazchikov, and G.A.Rogerson. On an edge bending wave in a thin elastic plate (submitted for publication)
109. J.Kaplunov and D.A.Prikazchikov. On the formulation of the mixed problems for an elastic half-plane in the framework of an asymptotic model for the Rayleigh wave. – Proc. Bauman Moscow State Technical University (accepted for publication).
108. B.Erbas, J.Kaplunov, and D.A. Prikazchikov. The Rayleigh wave field in mixed problems for a half-plane. IMA J. Appl. Math. ; *published online April 25, 2012 doi:10.1093/imamat/hxs010*.
107. Y.Fu and J.Kaplunov. Analysis of localized edge vibrations of cylindrical shells using Stroh formalism (Special issue on Dynamic Edge Phenomena on Elastic Structures).-Math. Mech. Solids 17(2012), 59-66.
106. J.B. Lawrie and J.Kaplunov. Edge waves and resonance on elastic structures: an overview (Special issue on Dynamic Edge Phenomena on Elastic Structures).-Math. Mech. Solids 17(2012), 4-16.
105. J.Kaplunov and D.A.Prikazchikov. On the general form of the bending edge wave in case of an elastic plate. – Proc. Bauman Moscow State Technical University, Natural Sciences (Special issue on Mathematical Modelling), 2011, 164-170.
104. R.V.Craster, J.Kaplunov, E.Nolde, and S.Guenneau. Bloch dispersion and high-frequency homogenization for separable doubly-periodic structures. - Wave Motion 49(2012), 333-346..
103. R.V.Craster, J.Kaplunov, E.Nolde, and S.Guenneau. High-frequency homogenization for checkerboard structures: Defect modes, ultra-refraction and all-angle-negative refraction. - JOSA 28(2011), 1032-1040.
102. R.V.Craster, S. Guenneau, J.Kaplunov, and E.Nolde. On a class of three-phase checkerboards with unusual effective properties. - C.R. Mecanique 339(2011), 411-417.
101. A.Its, E.Its, and J.Kaplunov. Riemann-Hilbert Approach to Elastodynamic Equation: Part 1 (Special issue dedicated to Prof V.Matveev).- Lett Math Phys 96(2011), 453-483.
100. B.Erbas, E.Yusufoglu, and J.Kaplunov. A plane contact problem for an elastic orthotropic strip (Special issue dedicated to Prof. A.A.Ilyshin).- J. Eng. Math. 70(2011), 399-409.
99. E.Nolde, R.V. Craster, and J.Kaplunov. High-frequency homogenization in structural mechanics. - J. Mech. Phys. Solids 59 (2011), 651-671.
98. R.V.Craster, J.Kaplunov, and J.Postnova. High frequency asymptotics, homogenization and localization for lattices. – Quart. J. Mech. Appl. Math. 64(2010), 497-519.

97. H.H.Dai, J.Kaplunov, and D.A.Prikazchikov. A long-wave model for the surface elastic wave in a coated half-space. – Proc. R. Soc. Lond. A 466 (2010), 3097-3116.
96. R.V. Craster, J.Kaplunov, and A.V. Pichugin. High frequency homogenization for periodic media.- Proc. R. Soc. Lond. A 466(2010), 2341-2362.
95. J.Kaplunov, E.Nolde, and D.A.Prikazchikov. A revisit to the moving load problem using an asymptotic model for the Rayleigh wave. –Wave Motion 47(2010), 440-451.
94. J.Kaplunov, V.Voloshin, and A.D.Rawlins. Uniform asymptotic behaviour of integrals of Bessel functions with a large parameter in the argument. - Quart .J. Mech. Appl. Math. 63(2010), 57-72.
93. A.L.Shuvalov, J.Kaplunov, and E.Nolde. Low-frequency cutoffs for the dispersion spectrum of elastic waves in a thin-walled anisotropic cylinder. – J. Elasticity 95(2009), 31-42.
92. J.Kaplunov, A.Pichugin, and V.Zernov. Extensional edge modes in elastic plates and shells. – JASA 125(2) (2009), 621-623.
91. J.D.Kaplunov and A.V.Pichugin. Analysis of boundary conditions in higher-order long-wave models. – Proc. of IUTAM Symposium on Scaling in Solid Mechanics, IUTAM Bookseries, Vol. 10, Springer (2009), 81-90.
90. J.Kaplunov and E.Nolde. An example of a quasi-trapped mode in a weakly non-linear elastic waveguide. – C.R. Mecanique 336 (2008), 553-558.
89. V.Zernov and J.Kaplunov. Three-dimensional edge plate waves. – Proc. R. Soc. Lond. A 464 (2008), 301-318.
88. A.G.Every, J.Kaplunov, A.Pichugin, and G.A.Rogerson. Dispersive wave propagation near cusps. – Proc. R. Soc. Lond. A 463 (2007), 2983-3000.
87. A.G.Every, J.Kaplunov, and G.A.Rogerson. Unfolding of wave-arrival singularities in the elastodynamic Green's functions of anisotropic solids under weak spatial dispersion. – Phys. Rev. B 74 (2006), 184307 (10 pages).
86. O. Poncelet, A. Shuvalov, and J. Kaplunov. Approximation of flexural velocity branch in plates. – Int. J. Solid Structures 43 (2006), 6329-6346.
85. J.Kaplunov, E. Nolde, and G.A.Rogerson. Asymptotic analysis of initial value problems for thin elastic plates. – Proc. R. Soc. Lond. A 462 (2006), 2541-2561.
84. J. Kaplunov, A. Zakharov, and D. Prikazchikov. Explicit models for elastic and piezoelectric surface waves. – IMA J. Appl. Math. 71 (2006), 768-782.
83. J.Kaplunov and A.Krynkin. Resonance vibrations of an interfacial elastic layer. – J. Sound Vibration 294 (2006), 663-677.
82. V. Zernov, A. Pichugin, and J. Kaplunov. Eigenvalue of semi-infinite elastic strip. – Proc. R. Soc. Lond. A 462 (2006), 1255-1270.
81. J.D.Kaplunov, A.V.Pichugin, and G.A.Rogerson. On a Lamb-type problem for a bi-axially pre-stressed incompressible elastic plate. – IMA J. Appl. Math. 719 (2006), 171-185.
80. A.T. Demchenko, J.D. Kaplunov, D.A.Prikazchikov, and I.A. Aleynikov. On the application of an asymptotic model for surface waves to moving load problems. – J. Sci. Techn. Transp. 3 (2005), 82-85.
79. J.Kaplunov, G.A.Rogerson, and P.E.Tovstik. High-frequency localized vibrations in thin structures of variable thickness. – Quart. J. Mech. Appl. Math. 58 (2005), pp. 645-664.
78. J.D.Kaplunov, D.A.Prikazchikov, and G.A.Rogerson. On 3D high-frequency edge waves in semi-infinite elastic plates subject to mixed face boundary conditions. – JASA 118 (2005), 2975-2983.
77. J.D.Kaplunov and A.V.Pichugin. A bending quasi-front generated by an instantaneous impulse loading at the edge of a semi-infinite pre-stressed incompressible plate. – J. Mech. Phys. Solids 53 (2005), 1079-1098.

76. E.Babenkova and J.Kaplunov. Radiation conditions for a semi-infinite elastic strip. – Proc. Roy. Soc. Lond. A 461(2005), 1163-1179.
75. E.V.Babenkova, J.D.Kaplunov, and Yu.A.Ustinov. On the Saint-Venant principle for low-frequency vibrations of a semi-strip. – J. Appl. Math. Mech (PMM) 69 (2005), 405-416.
74. J.D.Kaplunov, E.V.Nolde, and B.F.Shorr. A perturbation approach for evaluating natural frequencies of moderately thick elliptic plates - J. Sound Vibration 281 (2005), 905-919.
73. M.V.Perel, J.D.Kaplunov, and G.A.Rogerson. Asymptotic theory of the internal reflection of modes in the varying elastic wave guide. – Wave Motion 41 (2005), 95-108.
72. J.D.Kaplunov, G.A. Rogerson, and D.A. Prikazchikov. Edge vibration of a pre-stressed semi-infinite strip with traction free edge and mixed face boundary conditions. – J. Appl. Math. Phys. (ZAMP) 55 (2004), 701-719.
71. J. D.Kaplunov, E.V.Nolde, and G.A.Rogerson. On the two-parametric nature of thickness plate vibration (invited paper for a volume dedicated to Professor Yu.A. Ustinov). – Proc. of Russian Universities, North Caucasus, Natural Sciences 125 (2004), 48-51.
70. J.D.Kaplunov, I.V.Kirillova, and J.A.Postnova. Dispersion of waves in a plane acoustic layer with flexible elastic walls. – Acoustical Physics 50 (2004), 694-698.
69. J.D. Kaplunov, L.Yu. Kossovich, and A.S. Zakharov. An explicit asymptotic model for the Bleustein-Gulyaev wave. – C.R. Mecanique 332 (2004), 487-492.
68. J.D. Kaplunov and L.Yu. Kossovich. Asymptotic model of Rayleigh waves in the far-field zone in an elastic half-plane. – Russian Phys. Dokl.(Doklady Akad. Nauk) 49 (2004), 234-236.
67. J.D.Kaplunov. Universal dynamic theory of shells. - Theories of Plates and Shells: Critical Review and New Applications. Springer Series: Lecture Notes in Applied and Computational Mechanics, Vol. 16 (2004), 77-84.
66. L.A.Bokeria, J.D.Kaplunov, and A.V.Lavrentiev. End to strokes. – World of Science 12 (2003), 78-82.
65. J.D.Kaplunov, V.A.Kovalev, and M.V.Wilde. Asymptotic analysis of higher-order peripheral waves in acoustic wave scattering by elastic cylinders and spheres. – Proc. of IUTAM Symposium on Asymptotics, Singularities and Homogenisation in Problems of Mechanics, Book Series - Solid Mechanics and its Applications, Vol. 113, Kluwer (2003), 4-13.
64. E.Babenkova and J.Kaplunov. The two-term interior asymptotic expansion in the case of low-frequency longitudinal vibrations of an elongated elastic rectangle. – Proc. of the IUTAM Symposium on Asymptotics, Singularities and Homogenisation in Problems of Mechanics. Book Series - Solid Mechanics and its Applications, Vol. 113, Kluwer (2003), 123-131.
63. E.Babenkova and J.Kaplunov. Low-frequency decay conditions for a semi-infinite elastic strip – Proc. R. Soc. Lond. A 460 (2003), 2153-2169.
62. J.D.Kaplunov, V.A.Kovalev, and M.V.Wilde. Matching of asymptotic models in scattering of a plane acoustic wave by an elastic cylindrical shell. – Int. J. Sound Vibration 264 (2003), 639-655.
61. M.V.Wilde and J.D.Kaplunov. Resonances of the Rayleigh waves in an elastic semi-strip. – Acoustical Physics 49 (2003), 31-35.
60. J.D.Kaplunov, V.A.Kovalev, and M.V.Wilde. Approximate description of resonances of whispering gallery type waves in the problem of acoustic wave scattering by elastic circular cylinders and spheres. – Mechanics of Solids (Izv. Akad. Nauk, Ser. Mekhanika Tverdogo Tela) 37 (2002), No.4, 147-158.
59. J.D.Kaplunov, E.V.Nolde, and G.A.Rogerson. Short-wave motion of a pre-stressed plate. - IMA J. Appl. Math. 67 (2002), 383-399.
58. J.D.Kaplunov, E.V.Nolde, and G.A.Rogerson. An asymptotically consistent model for long-wave high-frequency motion of a pre-stressed elastic plate. – Math. Mech. Solids 7 (2002), 581-606.

57. J.D.Kaplunov and M.V.Wilde. Free interfacial vibrations in cylindrical shells. – JASA 111(6) (2002), 2692-2704.
56. J.D.Kaplunov and E.V.Nolde. Long wave vibrations of a nearly incompressible isotropic plate with fixed faces. – Quart. J. Mech. Appl. Math. 55 (2002), No 3, 345-356.
55. M.V.Wilde, J.D.Kaplunov, and V.A.Kovalev. On the approximation of plane layer type in the problem of acoustic wave scattering by a cylindrical shell. – Mechanics of Solids (Izv. Akad. Nauk, Ser. Mekhanika Tverdogo Tela) 37 (2002), No.3, 153-159.
54. J.D.Kaplunov and M.V.Wilde. Free edge bending vibrations of a semi-strip with a traction free contour. – Proc. 5th International Conference on Vibration Problems. Moscow (2001), 254-257.
53. L.Yu.Kossovich and J.D.Kaplunov. Asymptotic analysis of transient elastic waves in thin shells of revolution under impact edge loading. – Proc. Saratov State University (2001), No.2, 111-131.
52. I.Emri, J.D.Kaplunov, and E.V.Nolde. Analysis of transient waves in thin structures utilizing matched asymptotic expansions. – Acta Mechanica 149 (2001), 55-68.
51. J.D.Kaplunov, E.V.Nolde, and G.A.Rogerson. A low frequency model for dynamic motion in pre-stressed incompressible elastic structures. – Proc. R. Soc. Lond. A. 456 (2000), 2589-2610.
50. J.D.Kaplunov and V.A.Kovalev. Approximate description of Rayleigh wave resonances in problems of acoustic wave scattering by elastic cylinders and spheres. – Mechanics of Solids (Izv. Akad. Nauk, Ser. Mekhanika Tverdogo Tela) 35 (2000), No.4, 152-157.
49. J.D.Kaplunov and M.V.Wilde. Edge and interfacial vibrations of elastic shells of revolution (Special issue dedicated to Prof. Erich Reissner). – J. Appl. Math. Phys. (ZAMP) 51 (2000), 530-549.
48. J.D.Kaplunov, L.Yu.Kossovich, and M.V.Wilde. Free localized vibrations of a semi-infinite cylindrical shell. – JASA 107 (2000), 1383-1393.
47. J.D.Kaplunov, L.Yu.Kossovich, and G.A.Rogerson. Direct asymptotic integration of the equations of transversely isotropic elasticity for plates near cut-off frequencies. – Quart. J. Mech. Appl. Math. 53 (2000), 323-341.
46. J.D.Kaplunov, L.Yu.Kossovich, and R.R.Moukhomodiariov. Impact normal compression of an elastic plate. Analysis utilizing a refined asymptotic 2D model. – Mechanics Research Communications 27 (2000), 117-122.
45. A.V.Belov, J.D.Kaplunov, and E.V.Nolde. A refined asymptotic model of fluid-structure interaction in scattering by elastic shells. – Flow, Turbulence and Combustion 61 (1999), 255-267.
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