

List of publications of T.V. Dudnikova

A) books

- [1] T.V. Dudnikova, The ergodic properties of the wave equations with mixing, Ph.D Thesis, 1994, Moscow State University. [in Russian]
- [2] T.V. Dudnikova, Mathematics. Theoretical foundations of heat processes (student textbook). Moscow State Institute of Steel and Alloys Publishing House, Moscow, 2001. 106 pp. [in Russian].
- [3] T.V. Dudnikova, On convergence to equilibrium for statistical solutions of the partial differential equations and difference equations. Two-temperature problem with mixing. Thesis for a Doctor's degree. 2006. 192 pp. [in Russian].
- [4] T.V. Dudnikova, N.N. Karavaeva, Probability Theory (student textbook).- Elektrostal Polytechnic Institute, 2012. 152 pp. [in Russian].

B) articles in journals

- [5] T.V. Dudnikova, Ergodic properties of the Klein-Gordon equation with variable coefficients, pp.75-77. In: "Theoretical and applied aspects of mathematical researches", 1994, Moscow State University [in Russian].
- [6] T.V. Dudnikova, Ergodic phase flow of wave equation with mixing. *Moscow University Mathematics Bulletin* **50** (1995), no.1, 15-19 [translated from Russian journal *Vestnik Moskovskogo Universiteta. Matematika*, 1995, no.1, 17-22].
- [7] T.V. Dudnikova, Connection between scattering matrix and scattering amplitude for symmetric hyperbolic systems. *Moscow University Mathematics Bulletin* **50** (1995), no.4, 1-3 [translated from Russian journal *Vestnik Moskovskogo Universiteta. Matematika*, 1995, no.4, 3-6].
- [8] T.V. Dudnikova, A.I. Komech, Ergodic properties of hyperbolic equations with mixing. *Theory Probab. Appl.* **41** (1996), no.3, 436-448 [translated from the Russian journal *Teoriya Veroyatnostei i ee Primeneniya* **41** (1996), no.3, 505-519].
- [9] T.V. Dudnikova, Stabilization of space-time statistical solutions of the Klein-Gordon equation, *Russ. J. Math. Phys.* **5** (1997), no.2, 179-188.
- [10] T.V. Dudnikova, A.I. Komech, E.A. Kopylova, Yu. Suhov, On convergence to equilibrium distribution, I. The Klein – Gordon equation with mixing. *Commun. Math. Phys.* **225** (2002), no.1, 1-32. ArXiv: math-ph/0508042.
- [11] T.V. Dudnikova, A.I. Komech, N.E. Ratanov, Yu. Suhov, On convergence to equilibrium distribution, II. The wave equation in odd dimensions, with mixing. *J. Stat. Phys.* **108** (2002), no.5/6, 1219-1253. ArXiv: math-ph/0508039.
- [12] T.V. Dudnikova, A.I. Komech, H. Spohn, On a two-temperature problem for wave equation. *Markov Processes and Related Fields* **8** (2002), no.1, 43-80. ArXiv: math-ph/0508044.
- [13] T.V. Dudnikova, A.I. Komech, H. Spohn, Energy-momentum relation for solitary waves of relativistic wave equations. *Russian J. Math. Phys.* **9** (2002), no. 2, 153-160. ArXiv: math-ph/0508045.

- [14] T.V. Dudnikova, A.I. Komech, H. Spohn, On the convergence to statistical equilibrium for harmonic crystals. *J. Math. Phys.* **44** (2003), no.6, 2596-2620.
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- [15] T.V. Dudnikova, A.I. Komech, N. Mauser, On the convergence to a statistical equilibrium for the Dirac equation. *Russian J. Math. Phys.* **10** (2003), no.4, 399-410.
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- [16] T.V. Dudnikova, A.I. Komech, N. Mauser, On two-temperature problem for harmonic crystals, *J. Stat. Phys.* **114** (2004), no.3/4, 1035-1083.
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- [18] T.V. Dudnikova, A.I. Komech, On a two-temperature problem for the Klein–Gordon equation. *Theory Probab. Appl.* **50** (2006), no.4, 582-611 [translated from the Russian journal *Teoriya Veroyatnostei i ee Primeneniya* **50** (2005), no.4, 675-710].
- [19] T.V. Dudnikova, On convergence to equilibrium for wave equations in \mathbf{R}^n , with odd $n \geq 3$, *preprint, Keldysh Inst. Appl. Mathem., Russian Academy of Sciences*, 2005, N.77, 32 pp. [in Russian]
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- [21] T.V. Dudnikova, Convergence to equilibrium for the wave equation in \mathbf{R}^n , with odd $n \geq 3$, *Russian Mathematical Surveys* **61** (2006), no.1, 168-170 [translated from the Russian journal *Uspekhi Matemat. Nauk*].
- [22] T.V. Dudnikova, On ergodic properties for harmonic crystals, *Russian J. Math. Phys.* **13** (2006), no.2, 123-130.
- [23] T.V. Dudnikova, H. Spohn, Local stationarity for lattice dynamics in the harmonic approximation, *Markov Processes and Related Fields* **12** (2006), 645-678.
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- [25] T.V. Dudnikova, Convergence to equilibrium distribution. The Klein-Gordon equation coupled to a particle, *Russ. J. Math. Phys.* **17** (2010), no.1, 77-95. ArXiv: 0711.1091.
- [26] T.V. Dudnikova, Lattice dynamics in the half-space. Energy transport equation, *J. Math. Phys.* **51** (2010), 083301 (25 pages). ArXiv: 0905.4806.
- [27] T.V. Dudnikova, The derivation of hydrodynamic equations for lattice systems, *Theoretical and Mathematical Physics* **169** (2011), no.3, 1667-1681 [Translated from *Teoreticheskaya i Matematicheskaya Fizika*, **169** (2011), no.3, 352-367].
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C) published contributions to academic conferences

- [28] T.V. Dudnikova, On ergodicity of phase flow of hyperbolic equations of divergent type, *Russian Mathematical Surveys* **49** (1994), no.4, 108-109 [translated from the Russian journal *Uspekhi Matemat. Nauk*].
- [29] T.V. Dudnikova, On mixing for hyperbolic equations, *Russian Mathematical Surveys* **50** (1995), no.4, 152 [translated from the Russian journal *Uspekhi Matemat. Nauk*].
- [30] T.V. Dudnikova, A.I. Komech, On stabilization for nonlinear wave equation, *Russian Mathematical Surveys* **51** (1996), no.5, 983 [translated from the Russian journal *Uspekhi Matemat. Nauk*].
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- [32] T.V. Dudnikova, A.I. Komech, H. Spohn, On convergence to the equilibrium distribution. Harmonic crystal with mixing, *Progress in Analysis. Proceedings of 3rd International ISAAC Congress*, 2003, v.1, 635-645.
- [33] T.V. Dudnikova, A.I. Komech, On convergence to statistical equilibrium in a crystal coupled to scalar field, *International conference "Differential Equations and Related Topics". Book of abstracts*, Moscow 2007, p. 82.
- [34] T.V. Dudnikova, Convergence to equilibrium distribution. The Klein-Gordon equation coupled to a particle, p.244-245. In: *Modern problems of mathematics, mechanics and their applications*, Materials of the International Conference dedicated to the 70-th anniversary of rector of MSU acad. V.A. Sadovnichy (March 30 – April 2, 2009), Moscow, Moscow State University, 2009. 416 pp.
- [35] T.V. Dudnikova, Lattice dynamics in the half-space: energy transport equation, p.45. In: *XVI International Congress on Mathematical Physics, Prague, Czech Republic, August 3-8, 2009. Programme. Abstracts. Participants*.
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- [37] T.V. Dudnikova, Derivation of hydrodynamic equations, p.352-353. In: *Mathematical Physics and its Applications. The Second International Conference (Samara (Russia), August 29 – September 4, 2010). Book of abstracts*.
- [38] T.V. Dudnikova, Hydrodynamical limit for lattice systems, p.34-35. In: *Differential Equations and Related Topics. Conference dedicated to outstanding mathematician I.G. Petrovskii. 23 joint session of Moscow Mathematical Society and I.G. Petrovskii Seminar. Moscow, May 29 – June 4, 2011. Book of abstracts*.
- [39] T.V. Dudnikova, Hydrodynamic limit for harmonic crystals, In: *XVII International Congress on Mathematical Physics, Aalborg, Denmark, August 6-11, 2012. Abstracts*.