Publications

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1. E. Khruslov, I. Pankratova, Homogenization of Maxwell's equations, Proceedings of 2006 International Conference on Mathematical Methods in Electromagnetic Theory, IEEE Conference Proceedings, p.239–241, 2006.

2. I. Pankratova, A. Piatnitski, On the behaviour at infinity of solutions to stationary convection-diffusion equation in a cylinder, DCDS-B, 11 (4), 935–970 (2009).

3. G.Panasenko, I.Pankratova, A.Piatnitski, Homogenization of convection-diffusion equation in thin rod structure, Integral Methods in Science and Engineering, Volume 1, Birkhäuser Boston, p.279–290 (2010).

4. S.Nazarov, I.Pankratova, A.Piatnitski, Homogenization of spectral problem for periodic elliptic operators with sign-changing weight function, Arch. Rational Mech. Anal. 200 (2011) 747–788.

5. I.Pankratova, A.Piatnitski, Homogenization of convection-diffusion equation in infinite cylinder, Networks and Heterogeneous Media 6 (1), 111–126 (2011).

6. I.Pankratova, A.Piatnitski, Spectral problem for a locally periodic elliptic operator with sign-changing weight function, J. Differential Equations 250 (2011) 3088–3134.

7. G. Allaire, I. Pankratova, A.Piatnitski, Homogenization and concentration for a diffusion equation with large convection in a bounded domain, Journal of Functional Analysis 262 (2012) 300–330.

8. G. Allaire, I. Pankratova, A.Piatnitski, Homogenization of a nonstationary convection- diffusion equation in a thin rod and in a layer, SeMA Journal, 58, pp.53-95 (2012).

9. V. Chiado-Piat, I.Pankratova, A.Piatnitski, Localization effect for a spectral problem in a perforated domain with Fourier boundary conditions, SIAM J. Math. Anal., 45(3),1302–1327 (2013).

10. I. Pankratova and K. Pettersson. "Spectral asymptotics for an elliptic operator in a locally periodic perforated domain." Applicable Analysis 94.6 (2015): 1207–1234.

11. A. Chechkina, I. Pankratova, and K. Pettersson. "Spectral asymptotics for a singularly perturbed fourth order locally periodic elliptic operator." Asymptotic Analysis 93.1-2 (2015): 141–160.

12. I. Pettersson. "Two-scale convergence in thin domains with locally periodic rapidly oscillating boundary". Differential Equations & Applications, 9(3), 393–412 (2017).

13. I. Petersson, A. Piatnitski. "Stationary convection-diffusion equation in an infinite cylinder". J. Differential Equations 264 (2018) 4456–4487.