

Construction and representation of some fractal layers

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Abstract

This paper is a sort of appendix to the papers of [5] and [2] dealing with second order transmission problems with fractal layers. In these model problems, the layer has the role of an interface which separates two regions of the space (see [1], [3], [4] and [5]). Those problems are a generalization of the by-now classic problem studied in [6] where the heat transfer through an infinitely conductive “flat” smooth layer is studied.

In this paper we construct some of the fractal layers considered in [5] and [2] and we give some graphic representations.

References

- [1] M.R. LANCIA, “A transmission problem with a fractal interface”, *Zeit. für Anal. und ihre Anwen.*, **212** (2002), 1, pp. 113–133.
- [2] M.R. LANCIA, “On some second order transmission problems”, to appear in this volume.
- [3] M.R. LANCIA and M.A. VIVALDI, “On the regularity of the solutions for transmission problems”, *Adv. Math. Sc. Appl.*, **13** (2002), pp. 455–466.
- [4] M.R. LANCIA and M.A. VIVALDI, “Asymptotic convergence of transmission energy forms”, to appear in this volume.
- [5] U. MOSCO and M.A. VIVALDI, “Variational problems with fractal layers”, to appear in this volume.
- [6] H. PHAM HUY and E. SANCHEZ-PALENCIA, “Phénomènes de Transmission à Travers des Couches Minces de Conductivité Élevée”, *Journal of Mathematical Analysis and Applications*, **47** (2002), pp. 284–309.