

DAN POLIŠEVSKI

- LIST OF PUBLICATIONS -

MONOGRAPHS:

[1] **Thermal Flow in Porous Media** (with H. I. Ene), *D.Reidel Pub.Co.*, Dordrecht, Holland, 208 p., 1987

BOOK CHAPTERS:

[1] **The warping and the torsion problems in a quasi-periodically perforated domain** (with M. L. Mascarenhas), in "Topology Design of Structures", M. P. Bendsøe and C. A. Mota-Soares (eds.), *Kluwer Academic Pub.*, 395-404, 1993

[2] **The regularized diffusion in partially fractured porous media**, in "Current Topics in Continuum Mechanics", vol.2, L. Dragos (edt.), *Ed. Acad. Rom.*, 105-116, 2003

[3] **Heat conduction through a first-order jump interface** (with R. Schiltz-Bunoiu), in "New Trends in Continuum Mechanics", M. Mihailescu-Suliciu (edt.), *Theta, Ser. Adv. Math.*, 225-230, 2005

PAPERS:

[1] **Homogeneisation de corps composites sous l'action de forces de grande frequence spatiale** (with F. Fleury and G. Pasa), *C. R. Acad. Sci. Paris, Ser.I*, t.289, 241-244, 1979

[2] **Comportamentul macroscopic al unui mediu elastic eterogen** (with G. Pasa), *Stud. Cerc. Mat.*, 32(4), 445-449, 1980

[3] **Sur les homotopies faiblement continues**, *C. R. Acad. Sci. Paris, Ser.I*, t.293, 609-610, 1981

[4] **Homogenization of a transmission problem with microscopic forces** (with G. Pasa), *Numer. Funct. Anal. and Optimiz.*, 3(1), 95-104, 1981

[5] **Omogenizarea unui model hidrodinamic** (with G. Pasa), *Stud. Cerc. Mat.*, 34(4), 361-366, 1982

[6] **Weak continuity in convection problems**, *J. Math. Anal. Appl.*, 110(1), 51-58, 1985

[7] **Steady convection in porous media, I. The solutions and their regularity**, *Int. J. Engng. Sci.*, 23(7), 733-739, 1985

[8] **Steady convection in porous media, II. The case of low Raleigh numbers and asymptotic expansions**, *Int. J. Engng. Sci.*, 23(7), 741-749, 1985

- [9] **Steady convection in porous media, III. The structure of the solutions**, *Int. J. Engng. Sci.*, 23(7), 751-757, 1985
- [10] **Topological degree for solvable mappings**, *Stud. Cerc. Mat.*, 37(6), 566-571, 1985
- [11] **The evolution Darcy-Boussinesq system (A weak maximum principle and the uniqueness)**, *Comment. Math. Univ. Carolinae*, 26(1), 181-183, 1985
- [12] **On the existence and uniqueness of instationary convection in porous media**, *An. St. Univ. "Al.I.Cuza" Iași, Ser.I*, 32(3), 75-84, 1986
- [13] **On the homogenization of fluid flows through periodic media**, *Rend. Sem. Mat. Univ. Politec. Torino*, 45(2), 129-139, 1987
- [14] **Uniqueness for the Navier-Stokes problem in periodic media**, *Bull. Math. (Soc. Sci. Math. Roum.)*, 32(2), 161-166, 1988
- [15] **Homogenization of Navier-Stokes model: The dependence upon parameters**, *J. Appl. Math. Phys. (ZAMP)*, 40(3), 387-394, 1989
- [16] **Steady convection in a porous layer with translational flow** (with H. I. Ene), *Acta Mechanica*, 84, 13-18, 1990
- [17] **Homogenization of thermal flows: The influence of Grashof and Prandtl numbers**, *Int. J. Engng. Sci.*, 28(4), 285-291, 1990
- [18] **Further remarks on the appearance of darcean convection**, *Rev. Roum. Math. Pures et Appl.*, 37(4), 335-343, 1992
- [19] **Instability of interfaces in oil recovery** (with G. Pasa), *Int. J. Engng. Sci.*, 30(2), 161-167, 1992
- [20] **Homogenization of the torsion problem with quasiperiodic structure** (with M. L. Mascarenhas), *Numer. Funct. Anal. and Optimiz.*, 13(5-6), 475-486, 1992
- [21] **The warping, the torsion and the Neumann problem in a quasi-periodically perforated domain** (with M. L. Mascarenhas), *Mathematical Modelling and Numerical Analysis (MMAN)*, 28(1), 37-57, 1994
- [22] **Quasi-periodic structure optimization of the torsional rigidity**, *Numer. Funct. Anal. and Optimiz.*, 15(1-2), 121-129, 1994
- [23] **Homogenization of Stokes-Boussinesq flows in a quasiperiodic domain** (with J. Saint Jean-Paulin), *Rev. Roum.Math. Pures et Appl.*, 40(9-10), 797-808, 1995
- [24] **An L^∞ -estimation in further homogenization of Navier-Stokes system**, *Rev. Roum. Math. Pures et Appl.*, 44(1), 123-127, 1999
- [25] **Optimal quasiperiodic design for a heat transfer problem**, *Int. J. Engng. Sci.*, 38, 267-274, 2000

- [26] **Homogenizing the torsion of a beam with quasiperiodic small perforations**, *Rev. Roum. Math. Pures et Appl.*, 45(1), 81-85, 2000
- [27] **Thermal flow through a porous radiant of low conductivity**, *J. Appl. Math. Phys. (ZAMP)*, 53(1), 12-19, 2002
- [28] **Model of diffusion in partially fissured media** (with H. I. Ene), *J. Appl. Math. Phys. (ZAMP)*, 53(6), 1052-1059, 2002
- [29] **Basic homogenization results for a biconnected ϵ -periodic structure**, *Applicable Analysis*, 82(4), 301-309, 2003
- [30] **Diffusion in an intermediate model of fractured porous media** (with R. Schiltz-Bunoiu), *Bul. St. Univ. Pitești, Ser. Mat. Inf.*, 10, 99-106, 2004
- [31] **Homogenization of a conductive suspension in a Stokes-Boussinesq flow** (with F. Bentalha and I. Gruais), *Applicable Analysis*, 85(6-7), 811-830, 2006
- [32] **Asymptotics of a thermal flow with highly conductive suspensions** (with F. Bentalha and I. Gruais), *Anal. Univ. București, Ser. Mat.*, 55(1), 17-26, 2006
- [33] **Diffusion process in a rarefied binary structure** (with F. Bentalha and I. Gruais), *Rev. Roum. Math. Pures et Appl.*, 52(2), 129-149, 2007
- [34] **Homogenizing a critical binary structure of finite diffusivities** (with I. Gruais), *Asymptotic Analysis*, 55(1-2), 85-101, 2007
- [35] **Optimal relations between the parameters of a P.E.M. fuel cell** (with A. Capatina, H.I. Ene, G. Pasa and R. Stavre), *Mathematical Reports*, 60(4), 299-308, 2008
- [36] **Diffusion in a highly rarefied binary structure of general periodic shape** (with F. Bentalha and I. Gruais), *Applicable Analysis*, 87(6), 635-655, 2008
- [37] **Mathematical model for the P.E.M. fuel cells using sulphuretted hydrogen** (with A. Capatina, H.I. Ene, G. Pasa and R. Stavre), *Mathematical Reports*, 61(1), 1-10, 2009
- [38] **Parametric study of fluid dynamics in P.E.M. fuel cells** (with A. Capatina, H.I. Ene, G. Pasa and R. Stavre), *Proceedings of the Romanian Academy, Ser. A*, 10(2), 31-38, 2009
- [39] **ϵ -Periodic structures containing highly conductive thin layers** (with I. Gruais), *Rev. Roum. Math. Pures et Appl.*, LV(6), 381-399, 2010
- [40] **Homogenizing media containing a highly conductive honeycomb substructure** (with I. Gruais), *Asymptotic Analysis*, 67(1-2), 33-43, 2010
- [41] **Variational approach and optimal control of a PEM fuel cell** (with A. Capatina, H.I. Ene, G. Pasa and R. Stavre), *Nonlinear Analysis: Theory Methods and Applications, Ser. A*, 74(10), 3242-3260, 2011
- [42] **Asymptotic heat equation for crossing superconductive thin walls** (with I. Gruais), *Applicable Analysis*, 91(11), 2029-2043, 2012

[43] **Fluid flows through fractured porous media along Beavers-Joseph interfaces** (with I. Gruais), *Journal de Mathématiques Pures et Appliquées*, 102(3), 482-497, 2014

[44] **The effective permeability of fractured porous media subject to the Beavers-Joseph contact law** (with I. Gruais and Florentina-Alina Stănescu), *Asymptotic Analysis*, 90(3-4), 267-280, 2014

[45] **Homogenization of fluid-porous interface coupling in a biconnected fractured media** (with I. Gruais), *Applicable Analysis*, 94(8), 1736-1747, 2015

[46] **Heat transfer with first-order interfacial jump in a biconnected structure** (with I. Gruais and Alina Stănescu), *Bulletin Mathématiques de la Société des Sciences Mathématiques de Roumanie*, 58[106](4), 463-473, 2015

[47] **Heat transfer models for two-component media with interfacial jump** (with I. Gruais), *Applicable Analysis*, 96(2), 247-260, 2015

[48] **Model of two-temperature convective transfer in porous media** (with I. Gruais), *J. Appl. Math. Phys. (ZAMP)*, 68(6), 143-152, 2017

[49] **Two-temperature homogenized eigenfunctions of conduction through domains with jump interfaces** (with I. Gruais and Alina Stefan), *Applicable Analysis*, 1-12, 2019
<https://doi.org/10.1080/00036811.2018.1563292>

PREPRINTS:

[1] **The Div-Curl Lemma revisited**, *arXiv:0712.2133 [math.FA]*, 1-5, 2007

[2] **Homogenizing the Darcy/Stokes coupling** (with I. Gruais), *Institut de Recherche Mathématique de Rennes, Prépublication 11-34*, hal-00597970, 1-14, 2011

[3] **Thermal flows in fractured porous media** (with I. Gruais), *Institut de Recherche Mathématique de Rennes, Prépublication 19-20*, hal-02129941, 1-15, 2019