

LIST OF PUBLICATIONS 2012-2016

In the setting of the Grant PN-II-ID-PCE-2011-3-0211

ISI papers

- 1) Dan Tiba, Pekka Neittaanmaki, Fixed domain approaches in shape optimization problems, *Inverse Problems*, vol.28, pp.1-35, (2012) [doi:10.1088/0266-5611/28/9/093001](https://doi.org/10.1088/0266-5611/28/9/093001), influence score 1, 83
- 2) Andrei Halanay, Luciano Pandolfi, Lack of controllability of the heat equation with memory, *Systems and Control Letters*, vol.61, no.10, pp. 999-1002 (2012), influence score 2,03
- 3) Vasile Dragan, Optimal Filtering for Discrete-Time Linear Systems with Multiplicative White Noise Perturbations and Periodic Coefficients *IEEE TRANSACTIONS ON AUTOMATIC CONTROL*, DOI: 10.1109/TAC.2012.2215534, vol.58, no.4, (2013), pp.1029-1034. influence score 1,71
- 4) Peter Philip, Dan Tiba, A PENALIZATION AND REGULARIZATION TECHNIQUE IN SHAPE OPTIMIZATION PROBLEMS, *SIAM J. Control Optim.*, vol.51, no.6, p.4295-4317 (2013). DOI: [10.1137/120892131](https://doi.org/10.1137/120892131) Influence score 2,53
- 5) Vasile Dragan, Samir Aberkane and Ivan G. Ivanov, On computing the stabilizing solution of a class of discrete-time periodic Riccati equations, *Int. J. Robust Nonlinear Control* (2013). DOI: 10.1002/rnc.3131, impact factor 2,652
- 6) Andrei Halanay, Cornel Murea, Carmen Safta, Numerical Experiment for Stabilization of the Heat Equation by Dirichlet Boundary Control, *Numerical Functional Analysis and Optimization*, vol.34, no.12 (2013), p.1317-1327, impact factor 0.542, DOI: 10.1080/01630563.2013.808210
- 7) Vasile Dragan, Samir Aberkane, H₂ optimal filtering for continuous-time periodic linear stochastic systems with state-dependent noise, *Systems & Control Letters* 66 (2014) p.35–42, influence score 2,03
- 8) Vasile Dragan, Stabilizing solution of periodic game-theoretic Riccati differential equation of stochastic control, *IMA Journal of Mathematical Control and Information* (2014) Page 1-27, doi:10.1093/imamci/dnu026, impact factor 0,967.
- 9) Vasile Dragan, Robust stabilization of discrete-time time-varying linear systems with Markovian switching and nonlinear parametric uncertainties,

International Journal of Systems Science. 45:7, (2014) p.1508-1517 DOI: 10.1137/120892131, impact factor 1,579

10)A, Halanay, L. Pandolfi, Approximate controllability and lack of controllability to zero of the heat equation with memory, JMAA 425 (2015), pp. 194-211, impact factor 1,112.

11)Roxana Nicolai, Dan Tiba, IMPLICIT FUNCTIONS AND PARAMETRIZATIONS IN DIMENSION THREE: GENERALIZED SOLUTIONS, DCDS-A, vol.35, no.6, (2015), pp.2701-2710, impact factor 0.972.

12) Dan Tiba, AN EXAMPLE ON SOME CONDITIONS IN THE CALCULUS OF VARIATIONS, U.P.B. Sci. Bull., Series A, Vol. 77, Iss. 2, 2015, pp.3-8, impact factor 0,405.

13) Vasile Dragan, Samir Aberkane, Ioan-Lucian Popa, Optimal H2 Filtering for Periodic Linear Stochastic Systems with Multiplicative White Noise Perturbations and Sampled Measurements, accepted for publication Journal of the Franklin Institute (2015), DOI: 10.1016/j.jfranklin.2015.10.010 , impact factor, 2,395.

14) Vasile Dragan, Hiroaki Mukaidani - Exponential stability in mean square of a singularly perturbed linear stochastic system with state-multiplicative white-noise perturbations and Markovian switching - *IET Control Theory Appl.*, 2016, Vol. 10, (9), pp. 1040-- 1051, (IF= 1,957).

15) A. Halanay, C.M. Murea, D. Tiba, Existence of a steady flow of Stokes fluid past a linear elastic structure using fictitious domain, *J. Math. Fluid Mech.*, vol.18, DOI 10.1007/s00021-015-fl0247-0 (2016), pp. 397-413. (IF 1,119)

16) Vasile Dragan, Eduardo F. Costa - Optimal stationary dynamic output-feedback controllers for discrete-time linear systems with Markovian jumping parameters and additive white noise perturbations- *IEEE Trans. on Automatic Control*, DOI 10.1109/TAC.2016.2529505, (IF= 2,777).

17) Cornel Murea, Dan Tiba, A direct algorithm in some free boundary problems, *Journal of Numerical Mathematics; Online First*, DOI 10.1515/jnma-2015-0048 (2016). (IF 0.552)

BDI and Conference Proceedings

- 18) Dan Tiba, Juergen Sprekels, Extensions of the control variational method, *Control and Cybernetics*, vol. 40, no.4 (2011), pp. 1099-1108., (appeared in 2012).
- 19) Dan Tiba, Optimal Control Approaches for Some Geometric Optimization Problems, *Lecture Notes in Engineering and Computer Science: Proceedings of WCECS 2012*, S. I. Ao, Craig Douglas, W. S. Grundfest and Jon Burgstone Editors, Newswood Limited, Hong Kong, (2012) pp.1248-1252, ISBN 978-988-19252-4-4
- 20) Dan Tiba, Finite element discretization in shape optimization problems for the stationary Navier-Stokes equation, in "System Modeling and Optimization": 25th IFIP TC 7 Conference, Berlin, Germany, September 12-16, 2011, Revised Selected Papers, D.Hoemberg and F.Troitzsch Eds., IFIP AICT 391, Springer, Heidelberg, pp. 437-444 (2013).
- 21) Peter Philip, Dan Tiba, Shape optimization via control of a shape function on a fixed domain: theory and numerical results, in *Numerical Methods for Differential Equations, Optimization and Technological Problems*, S.Repin, T.Tiihonen, T.Tuovinen Eds., *Comp. Meth. In Appl. Sc.* 27, Springer Verlag, Dordrecht (2013), pp.305-320.
- 22) Dan Tiba, Optimal Control Methods and the Variational Approach to Differential Equations, *Lecture Notes in Engineering and Computer Science: Proceedings of IMECS 2013*, S.I. Ao, O. Castillo, D. Craig, D.D. Feng, J.-A. Lee, Eds., Newswood Limited, Hong Kong, (2013) pp.127-132, ISBN 978-988-19251-8-3.
- 23) Vasile Dragan, Toader Moroza, Adrian-Mihail Stoica, H2 OPTIMAL FILTERING FOR DISCRETE-TIME LINEAR STOCHASTIC SYSTEMS WITH PERIODIC COEFFICIENTS AND MARKOVIAN JUMPING, *Ann. Acad. Rom. Sci. Ser. Math. Appl.* Vol. 5, No.1-2, (2013), pp. 46-64.
- 24) Vasile Dragan, Toader Moroza, Viorica Ungureanu, SOME LYAPUNOV TYPE POSITIVE OPERATORS ON ORDERED BANACH SPACES, *Ann Acad. Rom. Sci. Ser. Math. Appl.* Vol. 5, No.1-2, (2013), pp. 65- 107.
- 25) Dan Tiba, THE IMPLICIT FUNCTION THEOREM AND IMPLICIT PARAMETRIZATIONS, *Ann. Acad. Rom. Sci. Ser. Math. Appl.* Vol. 5, No.1-2, (2013), pp. 193 – 208
- 26) C.M. Murea, A. Halanay, Embedding domain technique for a fluid-structure interaction problem, *Modeling and Optimization*, D. Hömberg, F. Tröltzsch, (Eds.), Springer, IFIP AICT 391 (2013), pp. 358-367.
- 27) V. Dragan, S. Aberkane, I.G.Ivanov Solving discrete-time game theoretic periodic Riccati equations: An iterative procedure, *Proceedings to the 12-th*

European Control Conference, Zurich, 17-19 July 2013, IEEE Catalog Number: CFP1390U-USB, Omnipress, (2013) ISBN: 978-3-9524173-4-8.

28) C.Murea, D.Tiba, A Penalization Method for the Elliptic Bilateral Obstacle Problem, in C. Pötzsche et al. (Eds.): CSMO 2013, IFIP AICT 443, pp. 1–10, Springer, (2014). DOI: 10.1007/978-3-662-45504-3 18

29) C.Murea, A. Halanay, Steady Fluid-Structure Interaction Using Fictitious Domain, in C. Pötzsche et al. (Eds.): CSMO 2013, IFIP AICT 443, pp. 1–10, Springer (2014). DOI: 10.1007/978-3-662-45504-3 12

30) A. Halanay, L. Pandolfi, LACK OF CONTROLLABILITY OF THERMAL SYSTEMS WITH MEMORY, EVOLUTION EQUATIONS AND CONTROL THEORY Volume 3, Number 3, September 2014, pp.485-497. doi:10.3934/eect.2014.3.485

31) R.Nicolai, SHAPE OPTIMIZATION AND THE IMPLICIT PARAMETRIZATION METHOD. APPLICATIONS, in “On Form and Pattern”, C. Vasilescu, M. Flonta, I. Craciun Eds., Editura Academiei, Bucuresti (2015), p. 83 – 97.

32) Vasile Dragan, Ivan G. Ivanov, SEVERAL ITERATIVE PROCEDURES TO COMPUTE THE STABILIZING SOLUTION OF A DISCRETE-TIME RICCATI EQUATION WITH PERIODIC COEFFICIENTS ARISING IN CONNECTION WITH A STOCHASTIC LINEAR QUADRATIC CONTROL PROBLEM, Ann. Acad. Rom. Sci. Ser. Math. Appl. Vol. 7, No. 1 (2015), pp.98-120.

33) Dan Tiba, UNILATERAL CONDITIONS ON THE BOUNDARY FOR SOME SECOND ORDER DIFFERENTIAL EQUATIONS, Ann. Acad. Rom. Sci. Ser. Math. Appl. Vol. 7, No. 1 (2015), pp.121-136.

34) Roxana Nicolai, An algorithm for the computation of the generalized solution for implicit systems, Ann. Acad. Rom. Sci. Ser. Math. Appl. Vol. 7, No. 2 (2015), pp. 308-320.

35) Vasile Dragan, Samir Aberkane - Computing the stabilizing solution of a class of generalized differential Riccati equations: A deterministic approximation - {22nd International Symposium on Mathematical Theory of Networks and Systems (MTNS)}, Minneapolis, USA, 12-15 Julie, Retrieved from the University of Minnesota Digital Conservancy, <http://hdl.handle.net/11299/181518>, (2016), pag.632--637, ISBN: 978-1-5323-1358-5.

36) Dan Tiba, Boundary Observation in Shape Optimization, in New Trends in Differential Equations, Control Theory and Optimization: Proceedings of the 8th Congress of Romanian Mathematicians, V. Barbu, C. Lefter, I. Vrabie Eds., World Scientific (2016), pp. 301 -- 315, ISBN:9789813142855

37) Dan Tiba, A DUALITY APPROXIMATION OF SOME NONLINEAR PDE's, Ann. Acad. Rom. Sci. Ser. Math. Appl., vol.8, no.1, 2016, pp. 68 – 77.

38) Mihaela Roxana Nicolai, High Dimensional Applications of Implicit Parametrizations in Nonlinear Programming, Ann. Acad. Rom. Sci. Ser. Math. Appl., vol.8, no.1, 2016, pp. 44 -- 55.