

UNIVERSITATEA **POLITEHNICA** DIN BUCUREȘTI

FACULTATEA DE ȘTIINȚE APLICATE

Departamentul: Matematici Aplicate

Postul: poziția **14** de **Lector universitar**

Disciplinele: Matematici 1, Analiză matematică 2,

Algebră liniară, geometrie analitică și diferențială

Domeniul de studii universitare: Matematică

LISTA DE LUCRĂRI

Candidat: **TREANȚĂ SAVIN**

TEZA DE DOCTORAT (T)

Titlul: “*Geometric PDEs and Control Problems*”, coordonator științific Prof. dr. emerit Constantin Udriște

ALTE MATERIALE PUBLICATE (I, D)

Capitol în “*Mathematical and Statistical Applications in Engineering and Life Sciences*” (Ed. Avishek Adhikari, Mahima R. Adhikari, Yogendra P. Chaubey), cu titlul *Single-time and multi-time Hamilton-Jacobi theory based on higher order Lagrangians*, Springer, 2017.

ARTICOLE / STUDII IN EXTENSO PUBLICATE (R, V)

16) **S. Treanță**, E.L. Dudaș, *(ρ, b)-Quasiinvexity and Efficiency Conditions in Matrix Variational Problems*, Systems Science and Applied Mathematics, acceptat.

15) **S. Treanță**, *Gauge Transformation, Moments and Generating Functions for Higher-Order Lagrangians*, Research and Communications in Mathematics and Mathematical Sciences, Vol. 8, No. 1, pp. 1-16, 2017; ISSN: 2319-6939.

14) **S. Treanță**, *Hamilton-Jacobi System of PDEs Governed by Higher-Order Lagrangians*, Transnational Journal of Mathematical Analysis and Applications, Vol. 5, No. 1, pp. 1-15, 2017; ISSN: 2347-9086.

13) **S. Treanță**, E.L. Dudaș, *Winds Generated by Flows and Riemannian Metrics*, American Journal of Science, Engineering and Technology, Vol. 2, No. 1, pp. 15-19, 2017; DOI: 10.11648/j.ajset.20170201.13.

- 12) **S. Treanță**, *Local uncontrollability for affine control systems with jumps*, International Journal of Control, 16 August 2016; DOI: <http://dx.doi.org/10.1080/00207179.2016.1227090>; ISSN: 0020-7179, eISSN: 1366-5820, (IF = 1.88).
- 11) **S. Treanță**, *Multiobjective Fractional Variational Problem on Higher-Order Jet Bundles*, Communications in Mathematics and Statistics, Vol. 4, No. 3, pp. 323-340, 2016; DOI: 10.1007/s40304-016-0087-0; ISSN: 2194-6701, eISSN: 2194-671X.
- 10) **S. Treanță**, *On a vector optimization problem involving higher order derivatives*, U.P.B. Scientific Bulletin, Series A, Vol. 77, No. 1, pp. 115-128, 2015; WOS: 000350851200013; ISSN: 1223-7027, (IF = 0.405).
- 9) **S. Treanță**, *On multi-time Hamilton-Jacobi theory via second order Lagrangians*, U.P.B. Scientific Bulletin, Series A, Vol. 76, No. 3, pp. 129-140, 2014; WOS: 000340335100011; ISSN: 1223-7027, (IF = 0.28).
- 8) **S. Treanță**, C. Vârsan, *Linear higher order PDEs of Hamilton-Jacobi and parabolic type*, Mathematical Reports, Vol. 16(66), No. 2, pp. 319-329, 2014; WOS: 000339642200011; ISSN: 1582-3067, (IF = 0.086).
- 7) **S. Treanță**, *PDEs of Hamilton-Pfaff type via multi-time optimization problems*, U.P.B. Scientific Bulletin, Series A, Vol. 76, No. 1, pp. 163-168, 2014; WOS: 000332914700016; ISSN: 1223-7027, (IF = 0.28).
- 6) **S. Treanță**, *Optimal control problems on higher order jet bundles*, BSG Proceedings 21, The International Conference "Differential Geometry - Dynamical Systems", DGDS-2013, October 10-13, 2013, Bucharest-Romania, Vol. 21, pp. 181-192, 2014; ISSN 1843-2654, eISSN 1843-2859.
- 5) **S. Treanță**, C. Vârsan, *Weak small controls and approximations associated with controllable affine control systems*, Journal of Differential Equations, Vol. 255, No. 7, pp. 1867-1882, 2013; DOI: 10.1016/j.jde.2013.05.028; WOS: 000322092900018; ISSN: 0022-0396, (IF = 1.57).
- 4) **S. Treanță**, C. Udriște, *Optimal control problems with higher order ODEs constraints*, Balkan Journal of Geometry and Its Applications, Vol. 18, No. 1, pp. 71-86, 2013; WOS: 000320754500007; ISSN: 1224-2780, (IF = 0.684).
- 3) **S. Treanță**, C. Udriște, *On efficiency conditions for multiobjective variational problems involving higher order derivatives*, Proceedings of the 15th International Conference on Automatic Control, Modelling & Simulation (ACMOS'13), pp. 157-164, 2013; ISBN: 978-1-61804-189-0.

2) **S. Treanță**, C. Udriște, *On auto-parallel behaviour of some special plane or space curves*, Proceedings of the 17th International Conference on Systems, Control, Signal Processing and Informatics (SCSI'13), pp. 90-94, 2013; ISBN: 978-960-474-314-8.

1) M. Doroftei, **S. Treanță**, *Higher order hyperbolic equations involving a finite set of derivations*, Balkan Journal of Geometry and Its Applications, Vol. 17, No. 2, pp. 22-33, 2012; WOS: 000302643700003; ISSN: 1224-2780; (IF = 0.806).

Notă: Factorul de impact folosit mai sus este cel corespunzător anului în care a fost publicată lucrarea!

CONTRACTE ȘI RAPOARTE ȘTIINȚIFICE (P, F)

3. Membru în echipa de cercetare a proiectului denumit „Matematici Aplicate în Urbanism”, director de proiect Lect. dr. Corina Cipu, 2016-2017, contract UPB-EXCELENȚĂ-2016 Matematici Aplicate în Urbanism, 25/26.09.2016.

2. Membru în echipa de cercetare a proiectului denumit „Studiul calitativ al ecuațiilor diferențiale cu argument deplasat cu aplicații la modelarea și simularea tratamentului leucemiilor”, director de proiect Prof. dr. Andrei Halanay, 2011-2014, contract UPB_CNCSIS, PN-II-ID-PCE-2011-3-0198.

1. Asistent de cercetare (bursă BITDEFENDER) la Institutul de Matematică “Simion Stoilow” al Academiei Române, August 2011 - Ianuarie 2012.

COMUNICĂRI ȘTIINȚIFICE NEPUBLICATE (E)

2. **S. Treanță**, *KT-pseudoinvex and KT-geodesic pseudoinvex control problems*, The 7-th Workshop for Young Researchers in Mathematics (WYRM - 2017), Mai 17 - 20, București, România, 2017.

1. **S. Treanță**, *Isoperimetric constrained optimal control problems*, The 8-th International Conference of Differential Geometry and Dynamical Systems, (DGDS - 2014), Septembrie 1 - 4, Mangalia, România, 2014.

Data: 02.06.2017