

**Anexa 2a**

**Titlu proiect: SISTEME DETERMINISTE ȘI STOCHASTICE CU RESTRIȚII DE STARE**

**Pagina web: [http://www.math.uaic.ro/~rascanu/idei\\_241/](http://www.math.uaic.ro/~rascanu/idei_241/)**

**Categoria de proiect: PNCDI II – IDEI – PCE**

**Contractul de finanțare nr. 241 / 05.10.2011**

**Manager proiect: Prof. dr. Aurel RĂȘCANU**

## **Lista rezultate**

Nr. crt.	NUME AUTORI	TITLUL ARTICOLULUI/ CĂRȚII/ COMUNICĂRII ȘTIINȚIFICE	REVISTA/ VOLUMUL/EDITURA IN CARE A APARUT/ CONFERINTA LA CARE S-A COMUNICAT	ANUL PUBLICARI/ COMUNICARI
<b>ARTICOLE ISI</b>				
1.	K. Bahlali, <b>L. Maticiuc,</b> A. Zălinescu	<i>Penalization method for a nonlinear Neumann PDE via weak solutions of reflected SDEs</i>	Electronic Journal of Probability (IF=0.852, RIS=1.388), vol. 18, article 102, 1-19 ( <a href="#">link to the journal</a> )	2013
2.	R. Buckdahn, <b>L. Maticiuc,</b> E. Pardoux, <b>A. Rășcanu</b>	<i>Stochastic Variational Inequalities on Non-Convex Domains</i>	Journal of Differential Equations (IF: 1.821, RIS: 2.386), vol. 259, no. 12, 7332-7374 ( <a href="#">link to the journal</a> )	2015
3.	<b>B. Diomande,</b> L. Maticiuc	<i>Multivalued Backward Stochastic Differential Equations with Time Delayed Generators</i>	Central European Journal of Mathematics (IF=0.512, RIS=0.655), vol. 12, no. 11, 1624-1637 ( <a href="#">link to the journal</a> )	2014
4.	<b>B. Diomande,</b> L. Maticiuc	<i>Multivalued Stochastic Delay Differential Equations and Related Stochastic Control Problems</i>	Accepted for publication in Quaestiones Mathematicae ( <a href="http://arxiv.org/abs/1305.7003">http://arxiv.org/abs/1305.7003</a> ).	2016
5.	<b>B. Diomande,</b> A. Zălinescu,	<i>Maximum principle for an optimal control problem associated to a stochastic variational inequality with delay</i>	Electronic Journal of Probability (IF=0.852, RIS=1.388), vol. 20, article 12, 1-35 ( <a href="#">link to the journal</a> )	2015
6.	<b>A. Gassous</b>	<i>A Skorohod problem driven by Clarke subdifferential and applications to SDEs</i>	Accepted for publication in Annals of the Alexandru Ioan Cuza University-Mathematics	2016
7.	<b>A. Gassous,</b> A. Rășcanu, E.-P. Rotenstein	<i>Multivalued backward stochastic differential equations with oblique subgradients</i>	Stochastic Processes and their Applications (IF=1.193, RIS=1.539), vol. 125, no. 8, 3170-3195 ( <a href="#">link to the journal</a> )	2015
8.	<b>A. Gassous,</b>	<i>Stochastic variational</i>	Stochastic Processes and their	2012

	<b>A. Răşcanu, E.-P. Rotenstein</b>	<i>inequalities with oblique subgradients</i>	Applications (IF=1.193, RIS=1.539), vol. 122, no. 7, 2668–2700 ( <a href="#">link to the journal</a> )	
9.	D. Goreac, C.A. Grosu, <b>E.-P. Rotenstein</b>	<i>Approximate and approximate null-controllability of a class of piecewise linear Markov switch systems</i>	Systems & Control Letters (IF=1.908, RIS=2.003), vol. 96, 118–123 ( <a href="#">link to the journal</a> )	2016
10.	<b>L. Maticiuc, A. Răşcanu</b>	<i>Backward Stochastic Variational Inequalities on Random Interval</i>	Bernoulli (IF=1.372, RIS=2.031), vol. 21, no. 2, 1166–1199 ( <a href="#">link to the journal</a> )	2015
11.	<b>L. Maticiuc, A. Răşcanu</b>	<i>On the continuity of the probabilistic representation of a semilinear Neumann-Dirichlet problem</i>	Stochastic Processes and their Applications (IF=1.193, RIS=1.539), vol. 126, no. 2, 572–607 ( <a href="#">link to the journal</a> )	2016
12.	<b>L. Maticiuc, A. Răşcanu, L. Ślomiński, M. Topolewski</b>	<i>Càdlàg Skorokhod problem driven by a maximal monotone operator</i>	Journal of Mathematical Analysis and Applications (IF=1.014, RIS=1.125), vol. 429, no. 2, 1305–1346 ( <a href="#">link to the journal</a> )	2015
13.	<b>L. Maticiuc, A. Răşcanu, A. Zălinescu</b>	<i>Backward stochastic variational inequalities with locally bounded generators</i>	Annals of the Alexandru Ioan Cuza University–Mathematics, vol. 60, no. 2, 503–526 ( <a href="#">link to the journal</a> )	2014
14.	<b>L. Maticiuc, E.-P. Rotenstein</b>	<i>Numerical Schemes for Multivalued Backward Stochastic Differential Systems</i>	Central European Journal of Mathematics (IF=0.512, RIS=0.655), vol. 10, no. 2, 693–702 ( <a href="#">link to the journal</a> )	2012
15.	<b>A. Răşcanu, E.-P. Rotenstein</b>	<i>A non-convex setup for multivalued differential equations driven by oblique subgradients</i>	Nonlinear Analysis: Theory, Methods & Applications (IF=1.125, RIS=1.148), vol. 111, 82–104 ( <a href="#">link to the journal</a> )	2014
<b>ARTICOLE ALTE BAZE DE DATE</b>				
1.	F. Cordoni, L. Di Persio, <b>L. Maticiuc, A. Zălinescu</b>	<i>A stochastic approach for path dependent nonlinear Kolmogorov equations via BSDEs with time-delayed generators</i>	Submitted for publication ( <a href="http://arxiv.org/abs/1602.05793v2">http://arxiv.org/abs/1602.05793v2</a> )	2016
2.	E. Pardoux, <b>A. Răşcanu</b>	<i>Continuity of the Feynman-Kac formula for a generalized parabolic equation</i>	Submitted for publication ( <a href="https://arxiv.org/abs/1602.01309">https://arxiv.org/abs/1602.01309</a> )	2016
<b>CARTI</b>				
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n				
<b>COMUNICARI STIINTIFICE NATIONALE</b>				
1.	<b>L. Maticiuc</b> , <i>Generalized BSDE on Random Time Interval; Variational Weak Formulation, Workshop on Deterministic and Stochastic Dynamical Systems and Applications, Voronet, Romania, September 3 – 7</i>			2012
2.	<b>A. Răşcanu</b> , <i>Workshop on Deterministic and Stochastic Dynamical Systems and Applications, From Deterministic to Stochastic Variational Inequalities in Non-Convex Domains, Voronet, Romania, September 3 – 7</i>			2012
3.	<b>E.-P. Rotenstein</b> , <i>Workshop on Deterministic and Stochastic Dynamical Systems and Applications, A generalized Skorohod problem with oblique reflection, Voronet, Romania,</i>			2012

	September 3 - 7	
4.	A. Răşcanu, Colloque Franco-Roumain en Theorie des Probabilites, <i>Formule de representation probabiliste pour une inéquation variationnelle parabolique: l'approche du problème de la continuité via la compacité dans la S-topologie de Jakubowski</i> , Bucharest, Romania, October 30 – November 1	2015
5.	L. Maticiuc, The Eighth Congress of Romanian Mathematicians, <i>Viscosity solutions for functional parabolic PDEs. A stochastic approach via BSDEs with time-delayed</i> , Iași, Romania, June 26 – July 1	2015
6.	L. Maticiuc, Sesiunea de Comunicari Științifice a Facultății de Matematică, <i>A càdlàg Skorohod problem driven by a maximal monotone operator</i> , Iași, Romania, October 23	2015
7.	L. Maticiuc, International Conference on Applied and Pure Mathematics, <i>A Multivalued Càdlàg Reflected Problem</i> , Iași, Romania, November 6 – 8	2015
8.	A. Zălinescu, International Conference on Applied and Pure Mathematics, <i>A Boundary Control Problem for a Stochastic PDE with Nonlinear Dynamical Boundary Conditions</i> , Iași, Romania, November 6 – 8	2015
9.	L. Maticiuc, XIII-ème Colloque Franco-Roumain de Mathématiques Appliquées, <i>A Generalized Skorokhod Problem with Càdlàg Discontinuities</i> , Iași, Romania, August 25 – 29	2016
10.	A. Răşcanu, XIII-ème Colloque Franco-Roumain de Mathématiques Appliquées, <i>On the continuity of the Feynman-Kac Formula</i> , Iași, Romania, August 25 – 29	2016
11.	E.-P. Rotenstein, XIII-ème Colloque Franco-Roumain de Mathématiques Appliquées, <i>Infection Time in Multi-Stable Gene Networks. A BSDE With Non-Convex, Switch-Dependent Reflection Models</i> , Iași, Romania, August 25 – 29	2016
12.	A. Zălinescu, XIII-ème Colloque Franco-Roumain de Mathématiques Appliquées, <i>Jump diffusions with oblique subgradients</i> , Iași, Romania, August 25 – 29	2016
<b>COMUNICARI ȘTIINȚIFICE INTERNATIONALE</b>		
1.	L. Maticiuc, <i>Variational Weak Solution of Backward Stochastic Variational Inequalities</i> , Workshop on Deterministic and Stochastic Dynamical Systems and Applications, El Kelaa Mgouna, Morocco, April 9 – 14	2012
2.	A. Zălinescu, Workshop on Stochastic Analysis and Applications, <i>A penalization method for the weak solution of reflected SDE</i> , El Kelaa Mgouna, Morocco, April 9 – 14	2012
3.	E.-P. Rotenstein, 8th World Congress in Probability and Statistics, <i>Qualitative and quantitative results for stochastic variational inequalities with oblique subgradients</i> , Istanbul, Turkey, July 9 – 14	2012
4.	A. Zălinescu, 6th International Conference on Stochastic Analysis and Its Applications, <i>Stochastic variational inequalities driven by Poisson random measures</i> , Bedlewo, Poland, September 10 – 14	2012
5.	A. Răşcanu, 12ème Colloque Franco-Roumain de Mathématiques Appliquées, <i>Càdlàg reflected problems with elastic projections</i> , Lyon, August 25 – 30	2014
6.	E.-P. Rotenstein, 12ème Colloque Franco-Roumain de Mathématiques Appliquées, <i>Multivalued BSDEs with oblique subgradients</i> , Lyon, August 25 – 30	2014
7.	A. Răşcanu, Workshop on "Stochastic Analysis, Controlled Dynamical Systems and Applications", <i>On the continuity of the probabilistic representation of a semilinear Neumann-Dirichlet problem</i> , Jena, Germany, March 9 – 13	2015
<b>ATLASE, DICTIONARE DE SPECIALITATE</b>		
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n		
<b>CERERI BREVET DE INVENTII/BREVET OBTINUT</b>		
<b>ALTE rezultate</b>		

1.	<b>L. Maticiuç, A. Răşcanu,</b>	<i>\$L^{\wedge\{p\}}\$-Solutions of Generalized Reflected Backward Stochastic Differential Equations</i>	Submitted for publication	2016
2.	<b>L. Maticiuç, E.-P. Rotenstein</b>	<i>Anticipated Backward Stochastic Variational Inequalities with Generalized Reflection</i>	Submitted for publication	2016
3.	<b>A. Răşcanu, E.-P. Rotenstein,</b>	<i>A comprehensive qualitative analysis of evolution equations featuring a multivalued Fréchet driver</i>	Submitted for publication	2016
4.	<b>A. Răşcanu, E.-P. Rotenstein,</b>	<i>Obstacle problems for parabolic SDEs with Hölder continuous diffusion: from weak to strong solutions</i>	Submitted for publication	2016

## Lista achizițiilor realizate în cadrul proiectului

Denumire echipament	Categorie de achiziții*: (numai mijloace fixe)	Valoarea (lei)	Locație
Laptop TOSHIBA PORTEGE Z830, display 13.3", 4GB DDR3, HDD 128GB	Cheltuieli cu Logistica (Cheltuieli de Capital; Imobilizări Corporale)	3.056,92	Facultatea de Matematică, Universitatea „Alexandru Ioan Cuza”, Iași
Laptop LENOVO THINKPAD E320, display 13.3", 4GB DDR3, HDD 320GB	Cheltuieli cu Logistica (Cheltuieli de Capital; Imobilizări Corporale)	4.233,82	Facultatea de Matematică, Universitatea „Alexandru Ioan Cuza”, Iași
Laptop DELL INSPIRON N5110/W7	Cheltuieli cu Logistica (Cheltuieli de Capital; Imobilizări Corporale)	2.989,64	Facultatea de Matematică, Universitatea „Alexandru Ioan Cuza”, Iași
Tablet PC APPLE IPAD 2 mc775hc/a	Cheltuieli cu Logistica (Cheltuieli de Capital; Imobilizări Corporale)	3.824,16	Facultatea de Matematică, Universitatea „Alexandru Ioan Cuza”, Iași
Tablet PC APPLE IPAD 2 mc775hc/a	Cheltuieli cu Logistica (Cheltuieli de Capital; Imobilizări Corporale)	3.824,16	Facultatea de Matematică, Universitatea „Alexandru Ioan Cuza”, Iași
Tablet PC APPLE IPAD 2 mc775hc/a	Cheltuieli cu Logistica (Cheltuieli de Capital; Imobilizări Corporale)	3.664,20	Facultatea de Matematică, Universitatea „Alexandru Ioan Cuza”, Iași
PDA Samsung Galaxy Note N7000 (Blue), 1GB RAM, 16 GB memorie internă, display 5.3", 2500 mAh	Cheltuieli cu Logistica (Cheltuieli de Capital; Imobilizări Corporale)	2.537,64	Facultatea de Matematică, Universitatea „Alexandru Ioan Cuza”, Iași
PDA Samsung Galaxy Note N7000 (Blue), 1GB RAM, 16 GB memorie internă, display 5.3", 2500 mAh	Cheltuieli cu Logistica (Cheltuieli de Capital; Imobilizări Corporale)	2.537,64	Facultatea de Matematică, Universitatea „Alexandru Ioan Cuza”, Iași
PDA Samsung Galaxy Note N7000	Cheltuieli cu Logistica	2.537,64	Facultatea de Matematică,

(Blue), 1GB RAM, 16 GB memorie internă, display 5.3", 2500 mAh	(Cheltuieli de Capital; Imobilizări Corporale)		Universitatea „Alexandru Ioan Cuza”, Iași
Computer ASUS, K31BF-RO005D	Cheltuieli cu Logistica (Cheltuieli de Capital; Imobilizări Corporale)	1.752,72	Facultatea de Matematică, Universitatea „Alexandru Ioan Cuza”, Iași
Laptop ASUS, ROG GL552VW-CN091D	Cheltuieli cu Logistica (Cheltuieli de Capital; Imobilizări Corporale)	4.798,80	Facultatea de Matematică, Universitatea „Alexandru Ioan Cuza”, Iași
Multifunctionala Brother, MFC-L2720DW	Cheltuieli cu Logistica (Cheltuieli de Capital; Imobilizări Corporale)	755,78	Facultatea de Matematică, Universitatea „Alexandru Ioan Cuza”, Iași

**Categorie de achiziții\*:**

1. Echipamente și aparatură de cercetare
2. Rețele de comunicații specializate
3. Baze de date și informații de specialitate
4. Echipamente și mijloace moderne de documentare și comunicare
5. Alte categorii

Director proiect,  
Prof. dr. Aurel RĂȘCANU