

## Europass Curriculum Vitae



*I don't understand why people are scared of new ideas.  
I'm frightened of the old ones.*

John Cage

### Personal information

First name(s) / Surname(s)  
Address(es)

Telephone(s)  
Fax(es)  
E-mail

Nationality

Date of birth

Gender

### Current employment/ Occupational field

### Work experience

Dates  
Occupation or position held

Main activities and  
responsibilities

Name and address of employer

### Eduard Paul ROTENSTEIN

1 Oancea street, bl. D12, Ap. 29, 700351, Iași (home);  
9 Carol I Blvd., „Alexandru Ioan Cuza” University of Iași,  
Faculty of Mathematics, 700506 (office)

004 0232.201.212 Mobile: 004 0744.567.036

004 0232.201.160

eduard.rotenstein@uaic.ro ; rotenep@yahoo.com

Homepage: <http://www.math.uaic.ro/~eduard/index.html>

Romanian

December 23, 1976

Male

**Lecturer at „Alexandru Ioan Cuza” University of Iași, Faculty of Mathematics, Iași**

2001 to present

- 2012-present – Lecturer at „Al. I. Cuza” University, Faculty of Mathematics, Iași
- 2005-2012 – Teaching Assistant at „Al. I. Cuza” University, Faculty of Mathematics, Iași
- 2001-2005 – Preparator at „Al. I. Cuza” University, Faculty of Mathematics, Iași

### Teaching experience (courses, seminars and laboratories held)

- Probability theory (S&L – 3<sup>rd</sup> and 4<sup>th</sup> year), Statistics (S&L – 3<sup>rd</sup> and 4<sup>th</sup> year), Monte-Carlo methods (S&L – 4<sup>th</sup> year), Martingale methods in financial markets modelling (C&S – Master II)
- Operational research (C, S&L – 3<sup>rd</sup> and 4<sup>th</sup> year), Optimization of economical processes (C&S – Master 2<sup>nd</sup> year), Graph theory (S – 3<sup>rd</sup> year)
- Basic Mathematics (Algebra, Geometry, Differential equations – 1<sup>st</sup> year)
- Computer Networks (L – 3<sup>rd</sup> year) (based on CISCO Networking Academy Program), Educational Software (C&L – Master 2<sup>nd</sup> year)
- Algorithms and Programming in C++ (C&L – 1<sup>st</sup> year)

### Interest and research fields

- Stochastic differential equations (forward and backward)
- Stochastic variational inequalities, Reflected SDEs and BSIVs
- Piecewise deterministic Markov Processes and related control problems
- Stochastic models in financial markets, Stochastic differential games
- Nonlinear and Convex analysis

„Alexandru Ioan Cuza” University, Faculty of Mathematics, Carol I no. 9-11 Bld.,  
700560, Iași, România

Type of business or sector | Higher education and research

## Education and training

Dates & type of mobility research



- [1] CIMPA - UNESCO - MOROCCO Spring Research School - *Stochastic Models in Mathematical Finance*, April 9-20, 2007, Marrakech, Morocco
- [2] Département de Mathématiques, Université du Maine, Le Mans, France, May 5 – June 21, 2008 (scientific collaboration - on *Stochastic differential games in complete financial markets* - with Prof. Saïd Hamadène)
- [3] *School on Finance and Insurance - Stochastic Analysis and Practical Methods*, Fakultät für Mathematik – Institut für Stochastik, March 2-13, 2009, Jena, Germany
- [4] Département de Mathématiques, Université du Maine, Le Mans, France, May 1 – June 15, 2009 (scientific collaboration - on *Stochastic differential games in complete financial markets* - with Prof. Saïd Hamadène)
- [5] *School on SDEs and SPDEs, Levy process driven models in Finance and other Applications*, The University of Manchester, School of Mathematics, August 10–21, 2009, Manchester, United Kingdom
- [6] CIMPA-UNESCO-ARGENTINA Research School - *Dynamic Optimization*, August 30th-September 10th, 2010, Campus Universitario, Universidad Nacional del Centro de la Provincia de Buenos Aires, Tandil, Argentina
- [7] *Research School on Stochastic Control Problems for FBSDEs and its Applications*, Université Cadi Ayyad, December 1–11, 2010, Marrakech, Morocco
- [8] *Spring Research School "Stochastic Models in Finance and Insurance"*, Fakultät für Mathematik – Institut für Stochastik, March 21 – April 1, 2011, Jena, Germany
- [9] *Summer School on SDEs and Control in Infinite Dimensions*, Università degli studi di Milano – Bicocca, June 27 - July 9, 2011, Italy
- [10] *Research School on Controllability of Deterministic and Stochastic Systems and its Applications*, „Al. I. Cuza” University, June 18 – 30, 2012, Iași, România
- [11] *Winterschool Convexity and probability in high dimensions*, Institut Henri Poincaré (I.H.P.), January 7-11, 2013, Paris, France
- [12] CIMPA - UNESCO - MESR-MINECO - MAROC Research School - *Méthodes Statistiques et Applications en Actuariat et Finance*, Marrakech (8-13 avril 2013) et El Kelaa Mgouna (15-20 avril 2013), Morocco
- [13] Laboratoire d'Analyse et de Mathématiques Appliquées, Université Paris-Est Marne-la-Vallée, France, August 18 - September 25, 2015 & April 28 – May 13, 2016 (scientific collaborations - on *Traffic control with mean-field piecewise deterministic Markov modelling* and *Switching non-convex BSDEs, with applications to biological models* - with Maître de conférences Dan Goreac)

October 2019 - Submission of the **Habilitation Thesis**, *Deterministic and Stochastic Variational Inequalities. A convex to nonconvex journey* (207 pp.)

Dates | June 1, 2014 – November 30, 2015

Title of qualification awarded | Postdoc position in the project POSDRU/159/1.5/S/137750 - *Programe doctorale și postdoctorale - suport pentru creșterea competitivității cercetării în domeniul Științelor exacte*

Title of qualification awarded | 2009 - Ph.D. degree at „Alexandru Ioan Cuza” University of Iași, with the thesis: *Numerical methods and optimal problems for deterministic and stochastic differential systems*

Dates | 2001 – 2002

Title of qualification awarded | Master degree, DPPD (Department for didactic personal training) Faculty of Psychology and Educational Sciences, „Alexandru Ioan Cuza” University of Iași

Dates | September – December 2002

Course CISCO CCNA, Semester 1 – CISCO Networking Academy Program

Dates | 1999 – 2002

Title of qualification awarded | Master in *Partial Differential Equations and Applications*

<p>Dates Title of qualification awarded</p>	<p>Faculty of Mathematics, „Alexandru Ioan Cuza” University of Iași 1995 – 1999 Bachelor degree Faculty of Mathematics, „Alexandru Ioan Cuza” University of Iași</p>
<p>Dates Name and type of organisation</p>	<p>1991 – 1995 „Grigore Moisil” Informatics Highschool, Iași</p>
<p>Organisational skills, competences and affiliations</p>	<ul style="list-style-type: none"> <li>• Former member and organizer of the workgroup <i>Seminarul de Matematici Financiare „Louis Bachelier”</i>, Iași</li> <li>• Former member of the workgroup <i>Seminarul de Ecuatii Diferentiale, Optimizare si Control Optimal</i> (directors: prof. dr. I. Vrabie, prof. dr. C. Zălinescu, prof. dr. O. Cârjă) - Seminar closed</li> <li>• Member of the workgroup <i>Seminarul de Analiză Stochastică și Aplicații</i> (director prof. dr. Aurel Rășcanu)</li> <li>• Official Monitor (in the framework of the European Grant - FP7-PEOPLE-2007-1-1-ITN Marie Curie, no. 213841-2/2008 „Controlled Systems”) for the Ph.D. thesis of Anouar Gassous (defended on November 6, 2013)</li> <li>• Member of the <i>Bernoulli Society for Mathematical Statistics and Probability</i> (membership number 15584)</li> <li>• Member and the local correspondent for <i>SPSR (Societatea de Probabilități și Statistică din România)</i></li> <li>• Reviewer for <i>MathScinet</i> (no. 077612); occasional reviewer for various prestigious mathematical journals.</li> </ul>
<p>Managerial competences</p>	<ul style="list-style-type: none"> <li>• Member of the organizing committee for the international <i>Workshop on Stochastic Partial Differential Equations</i>, September 8-9, 2008, Iași, România</li> <li>• Member of the organizing committee for the <i>Research School on Controllability of Deterministic and Stochastic Systems and its Applications</i>, „Al. I. Cuza” University, June 18 – 30, 2012, Iași, România</li> <li>• Member of the organizing committee for the <i>International Conference on “Controlled deterministic and stochastic systems”</i>, July 2-7, 2012, Iași, România</li> <li>• Member of the organizing committee for the <i>Workshop on Deterministic and Stochastic Dynamical Systems and Applications</i>, September 3-7, 2012, Voroneț, România</li> <li>• Former member in the managerial board of the <i>„Al. Myller” Mathematical Seminary Foundation</i></li> <li>• Administrative responsible in 2009-2010 of the Research Grant IDEI ID_395 / 2007 (-2010), <i>Differential systems with random perturbations; control and viability problems</i>, project director: prof. dr. Aurel Rășcanu</li> <li>• Project manager of the Research European Grant - FP7-PEOPLE-2007-1-1-ITN Marie Curie, no. 213841-2/2008 „Controlled Systems” (members: „Al. I. Cuza” University of Iași, România; Université de Bretagne Occidentale, Brest, France; Friedrich-Schiller-Universität Jena, Germany; University of Manchester, Manchester, United Kingdom; Université Cadi Ayyad, Marrakech, Morocco; Università degli studi di Milano – Bicocca, Milano, Italy), project coordinator: prof. dr. Aurel Rășcanu</li> </ul>

## Additional information

## Research grants

### National

- [1] Member of the Grant CNCSIS 1156 / 2005 (-2008), *Deterministic and stochastic differential models with states constraints. Control, invariance and numerical approximation*, director prof. dr. Aurel Rășcanu (value: 210,000 RON≈50,000 EUR)
- [2] Member of the Grant IDEI ID\_395 / 2007 (-2010), *Differential systems with random perturbations; control and viability problems*, director prof. dr. Aurel Rășcanu (<http://www.math.uaic.ro/~idei/>) (value : 804,000 RON≈200,000 EUR) ([http://www.math.uaic.ro/~ITN\\_Marie\\_Curie/board.php](http://www.math.uaic.ro/~ITN_Marie_Curie/board.php))
- [3] Member of the Grant PN-II-ID-PCE-2011-3-0843, no. 241/05.10.2011 (-2016), *Deterministic and stochastic systems with state constraints*, director prof. dr. Aurel Rășcanu (value: 1,125,000 RON≈260,000 EUR)
- [4] Member of the Grant PN-II-ID-PCE-2011-3-1038, no. 208/05.10.2011 (-2015), *Diagonal stability and flow invariance in control engineering. Techniques specialized for classes of dynamics, encompassed by a unified framework*, director prof. dr. Octavian Păstrăvanu

### International

- [1] Member (and **project manager**) of the Grant FP7-PEOPLE-2007-1-1-ITN, no. 213841-2 / 2008 (-2012), *Deterministic and Stochastic Controlled Systems and Applications*, director prof. dr. Aurel Rășcanu (value : 3,761,677 EUR)

### Former project proposals (most relevant):

- [1] Member of the Grant Proposal *Analiza calitativă a unor probleme de optimizare vectorială și stocastică* (2009), director prof. dr. Marius Durea  
Evaluation mark: 92,70 points (from 100)
- [2] COST Action Proposal OC-2016-1-20417 "Mathematics of New Financial Risks".  
(as the second proposer; main investigator: (2016) Prof. Paolo Guasoni - Boston University and Dublin City University).  
Evaluation mark: 55 points (from 65)

## Annexes

- Annex A: List of publications  
Annex B: Lectures at scientific events  
Annex C: Citations

## Contact references:

- Prof. Aurel Rășcanu (aurel.rascanu@uaic.ro)
- Prof. Rainer Buckdahn (rainer.buckdahn@univ-brest.fr)
- Prof. Marc Quincampoix (Marc.Quincampoix@univ-brest.fr)
- Prof. Tusheng Zhang (tusheng.zhang@manchester.ac.uk)
- Acad. Shige Peng (peng@sdu.edu.cn)
- Acad. Youssef Ouknine (ouknine@ucam.ac.ma)
- Prof. Gianmario Tessitore (gianmario.tessitore@unimib.it)
- Prof. Saïd Hamadène (hamadene@univ-lemans.fr)



## Annex A: List of publications

### Articles

- [1] Saïd Hamadène, Eduard-Paul Rotenstein, Adrian Zălinescu, *A generalized mixed zero-sum stochastic differential game and double barrier reflected BSDEs with quadratic growth coefficient*, *An. Stiint. U. Al. I-Mat.*, Tomul LV, f2, pp. 419-444, 2009 (MR2562257, Zbl 05649815, WOS:000270601000013, [link to article](#))
- [2] Eduard-Paul Rotenstein, *Pricing financial derivatives by a minimizing method*, *An. Univ. Timiș., Ser. Mat.-Inform.*, XLVII, 1, pp. 111-121, 2009 (MR2798010, Zbl 05876356)
- [3] Aurel Rășcanu, Eduard-Paul Rotenstein, *The Fitzpatrick function - a bridge between convex analysis and multivalued stochastic differential equations*, *J. Convex Anal.*, 18, No. 1 (January), pp. 105-138, 2011 (MR2777600, Zbl 05834212, WOS:000286151200006, [link to article](#))
- [4] Lucian Maticiuc, Eduard-Paul Rotenstein, *Numerical Schemes for Multivalued Backward Stochastic Differential Systems*, *Cent. Eur. J. Math.* (current name *Open Math.*), 10(2), pp. 693-702, 2012 (MR2886566, Zbl 06039976, WOS:000301047500021, [link to article](#))
- [5] Anouar Gassous, Aurel Rășcanu, Eduard-Paul Rotenstein, *Stochastic variational inequalities with oblique subgradients*, *Stoch. Process. Appl.*, Volume 122, Issue 7 (July), pp. 2668-2700, 2012 (MR2926171, Zbl 06052940, WOS:000305661000006, [link to article](#))
- [6] Eduard-Paul Rotenstein, *A multi-dimensional FBSDE with quadratic generator and its applications in option pricing and hedging*, *An. Șt. Univ. Ovidius Constanța*, Vol. 23(2), pp. 213-222, 2015 (MR3348713, WOS:000359611800018, [link to article](#))
- [7] Aurel Rășcanu, Eduard-Paul Rotenstein, *A non-convex setup for multivalued differential equations driven by oblique subgradients*, *Nonlinear Anal.-Theor.*, Volume 111 (December), pp. 82-104, 2014 (MR3263505, Zbl 06351524, WOS:000343141600005, [link to article](#))
- [8] Marius Apetrii, Mihaela-Hanako Matcovschi, Octavian Păstrăvanu, Eduard-Paul Rotenstein, *Invariance for stochastic differential systems with time-dependent constraining sets*, *Acta Math. Sin., English Series*, Volume 31, Issue 7 (July), pp. 1171-1188, 2015 (MR3360781, Zbl 06457539, WOS: 000356877100010, [link to article](#))
- [9] Anouar Gassous, Aurel Rășcanu, Eduard-Paul Rotenstein, *Multivalued BSDEs with oblique subgradients*, *Stoch. Process. Appl.*, Volume 125, Issue 8 (August), pp. 3170-3195, 2015 (MR3343291, Zbl 06440579, WOS:000355038800011, [link to article](#))
- [10] Eduard-Paul Rotenstein, *Parabolic variational inequalities with generalized reflecting directions*, *Open Math.* (formerly *Cent. Eur. J. Math.*) 13, pp. 860-867, 2015 (MR3430936, Zbl 06632263, WOS:000369912100001, [link to article](#))
- [11] Dan Goreac, Claudia Alexandra Grosu, Eduard-Paul Rotenstein, *Approximate and approximate null-controllability of a class of piecewise linear Markov switch systems*, *Syst. & Control Lett.*, Volume 96 (October), pp. 118-123, 2016 (MR3547664, Zbl 06640035, WOS:000384788100017, [link to article](#))
- [12] Dan Goreac, Eduard-Paul Rotenstein, *Infection Time in Multistable Gene Networks. A Backward Stochastic Variational Inequality with Nonconvex Switch-Dependent Reflection Approach*, *Set-Valued Var. Anal.*, Volume 24(4), pp. 707-734, 2016 (MR3570351, Zbl 06678157, WOS:000393231300011, [link to article](#))
- [13] Aurel Rășcanu, Eduard-Paul Rotenstein, *Obstacle problems for parabolic SDEs with Hölder continuous diffusion: from weak to strong solutions*, *J. Math. Anal. Appl.*, Volume 450, Issue 1 (June, 1), pp. 647-669, 2017 (MR3606187, Zbl 06684656, WOS: 000394404800035, [link to article](#))
- [14] Lucian Maticiuc, Eduard-Paul Rotenstein, *Anticipated backward stochastic variational inequalities with generalized reflection*, *Stoch. Dyn.*, Vol. 18, No. 2, article ID: 1850008, pages: 1-21, DOI: 10.1142/S0219493718500089, 2018 (MR3735409, Zbl 06820899, WOS: 000417743600002, [link to article](#))
- [15] Aurel Rășcanu, Eduard-Paul Rotenstein, *Backward stochastic dynamics driven by an unbounded subdifferential operator on a filtered probability space*, submitted at *Electron. J. Probab.*, 2019
- [16] Aurel Rășcanu, Eduard-Paul Rotenstein, *L<sup>1</sup>-variational solution for BSVIs on a deterministic time interval*, draft, to be submitted at *Discrete Cont. Dyn.-A.*, 2019

From the above list, the following papers were awarded, at publication time, by UEFISCDI (CNCSIS):

- Red zone (1Q): [7] PN-II-RU-PRECISI-2014-8-5970, [9] PN-II-RU-PRECISI-2015-9-7841, [11] PN-III-P1-1.1-PRECISI-2016-12942, [13] PN-III-P1-1.1-PRECISI-2017-13688
- Yellow zone (2Q): [3] PN-II-RU-PRECISI-2012-6-0246, [5] PN-II-RU-PRECISI-2012-6-0847, [12] PN-III-P1-1.1-PRECISI-2017-13807

### Under construction | To do list

- [1] Aurel Rășcanu, Eduard-Paul Rotenstein, *A comprehensive qualitative analysis of evolution equations featuring a Fréchet subdifferential driver*, in progress

- [2] Dan Goreac, Eduard-Paul Rotenstein, *Infinite dimensional BSDEs driven by mode-dependent jump processes and featuring maximal monotone operators*, in progress
- [3] Lucian Maticiuc, Eduard-Paul Rotenstein, *BSVIs driven by time-dependent random constraints*, pending
- [4] Eduard-Paul Rotenstein, *Stochastic evolution equations involving quasi-subdifferential operators*, pending

**[Phd Thesis]** Numerical methods and optimal problems for deterministic and stochastic differential systems.

Scientific advisor: Prof. dr. Aurel Rășcanu

Referees: Prof. dr. Constantin Tudor, Universitatea București, Facultatea de Matematică și Informatică

Prof. dr. Rainer Buckdahn, Université de Bretagne Occidentale, Brest, France

Prof. dr. Teodor Havârneanu, Universitatea „Alexandru Ioan Cuza”, Facultatea de Matematică

## Annex B: Talks at scientific events

- [1] Zilele Universității „Al. I. Cuza”, Iași – *A splitting - up method for the Generalized Skorohod Problem*, October 26, 2004 (talk)
- [2] Zilele Universității „Al. I. Cuza”, Iași – *Backward stochastic differential equations in financial markets*, October 27, 2005 (talk)
- [3] Fifth Colloquium on Backward Stochastic Differential Equations and their Applications – *Fitzpatrick approach for multivalued monotone stochastic equations*, Le Mans, France, June 18-20, 2008 (with paper)
- [4] Worskshop on Stochastic Partial Differential Equations – *A generalized mixed zero-sum stochastic differential game and double barrier reflected BSDEs with quadratic growth coefficient*, Iași, România, September 8-9, 2008 (talk)
- [5] Worskshop on Stochastic Partial Differential Equations – *Fitzpatrick function : a new approach for SDE driven by maximal monotone operators*, Iași, România, September 8-9, 2008 (with paper)
- [6] Worskshop on Stochastic Partial Differential Equations – *Backward stochastic variational inequalities with quadratic growth*, Iași, România, September 8-9, 2008 (with paper)
- [7] Zilele Universității „Al. I. Cuza”, Iași – *The study of multivalued equations via convex analysis*, October 17, 2008 (talk)
- [8] Worskshop on Finance and Insurance, Friedrich Schiller Universität, Fakultät für Mathematik - Institut für Stochastik – *American game options and reflected BSDEs with quadratic growth*, Jena, Germany, March 16-20, 2009 (talk)
- [9] Conference on Stochastic Differential Equations, Stochastic Partial Differential Equations and Related Topics – *Minimization methods in the qualitative analysis of SDEs*, University of Manchester, Manchester, United Kingdom, August 24-28, 2009 (talk)
- [10] Zilele Universității „Al. I. Cuza”, Iași – *Stochastic switching problems*, October 23, 2009 (talk)
- [11] "Alexandru Myller" Mathematical Seminar Centennial Conference – *BSVI with oblique subgradients* (with paper) and *Approximation of backward stochastic variational inequalities* (talk), Iași, România, June 21-26, 2010
- [12] 10ème Colloque Franco-Roumain de Mathématiques Appliquées – *Approximation Methods for Generalized Backward Stochastic Variational Inequalities*, Poitiers, France, 26-31 Août 2010 (with paper)
- [13] International Conference on Applied and Pure Mathematics – *Numerical Schemes for Multivalued Backward Stochastic Dynamical Systems*, Universitatea Tehnică „Gh. Asachi” Iași, România, November 12-14, 2010 (talk)
- [14] International Conference on “Control Problems and Related Topics” – *Convex optimization problems and BSDEs driven by maximal monotone operators*, Université Cadi Ayyad, Marrakech, Morocco, December 13-17, 2010 (talk)
- [15] ITN School and Workshop on “Deterministic and stochastic evolution equations in infinite dimensions” – *Approximation schemes for backward stochastic variational inequalities*, Università degli studi di Milano - Bicocca, Milano, Italy, July 11-13, 2011 (talk)
- [16] Zilele Universității „Al. I. Cuza”, Iași – *Backward Stochastic Differential Equations with non-standard reflection*, October 28, 2011 (talk)
- [17] 8<sup>th</sup> World Congress in Probability and Statistics – *Qualitative and quantitative results for stochastic variational inequalities with oblique subgradients*, Istanbul, Turkey, July 9-14, 2012 (poster)
- [18] Workshop on Deterministic and Stochastic Dynamical Systems and Applications – *A generalized Skorohod problem with oblique reflection*, Voronet, România, September 3-7, 2012 (talk)
- [19] Zilele Universității „Al. I. Cuza”, Iași – *Invarianța mulțimilor convexe dependente de timp pentru sisteme diferențiale* (with paper); *Inecuații variaționale oblice* (with paper), October 25-26, 2013
- [20] 3<sup>rd</sup> International Conference on Applied and Pure Mathematics – *A non-convex setup for multivalued differential equations driven by oblique subgradients*, Universitatea Tehnică „Gh. Asachi” Iași, România, November 1-3, 2013 (talk)
- [21] 12ème Colloque Franco-Roumain de Mathématiques Appliquées – *Multivalued BSDEs with oblique subgradients*, Université Lyon 1, Lyon, France, 25-30 Août, 2014 (talk)

- [22] Third International Conference on Numerical Analysis and Approximation Theory – *Approximating schemes for BSDEs with generalized reflection*, Cluj-Napoca, România, September 17-20, 2014 (talk)
- [23] Workshop on Stochastic analysis, Controlled Dynamical Systems and Applications – *SDEs with oblique subgradients: a journey from the convex to the non-convex framework*, Friedrich Schiller Universität, Fakultät für Mathematik – Institut für Stochastik, Jena, Germany, March 9-13, 2015 (poster)
- [24] The 8<sup>th</sup> Congress of Romanian Mathematicians – *Anticipated BSDEs with generalized reflection*, „Alexandru Ioan Cuza” University of Iași, România, June 26-July 1, 2015 (talk)
- [25] 38<sup>th</sup> Conference on Stochastic Processes and their Applications – *Stochastic evolution equations with oblique reflecting subgradients: a convex to non-convex journey*, Oxford-Man Institute of Quantitative Finance, University of Oxford, United Kingdom, July 13-17, 2015 (talk)
- [26] 13<sup>ème</sup> Colloque Franco-Roumain de Mathématiques Appliquées – *Infection time in multi-stable gene networks. A BSDE with non-convex, trend-dependent reflection approach* (talk); *Approximate and Approximate Null-Controllability of a Class of Piecewise Linear Markov Switch Systems* (with paper), „Alexandru Ioan Cuza” University of Iași, Iași, România, 25-29 August, 2016
- [27] XXXIV International Seminar on Stability Problems for Stochastic Models – *BSDEs driven by a piecewise deterministic Markov process and featuring generalized Fréchet subgradients. Applications to multi-stable gene networks dynamics*, University of Debrecen (in association with Lomonosov Moscow State University and Institute of Informatics Problems of the Russian Academy of Sciences), Debrecen, Hungary, August 25-29, 2017 (talk)
- [28] 5<sup>th</sup> International Conference on Applied and Pure Mathematics – *Anticipated BSDEs with generalized reflection* (with paper) and *Obstacle problems for parabolic SDEs with Hölder continuous diffusion: From weak to strong solutions*, Universitatea Tehnică „Gh. Asachi” Iași, România, November 2-5, 2017 (talk)
- [29] 21<sup>th</sup> Conference of the Romanian Society of Probability and Statistics – *Approximate and approximate null-controllability of a class of piecewise linear Markov switch systems*, Bucharest Academy of Economic Studies, Bucharest, April 13-14, 2018 (talk)
- [30] Seminarul ISMMA de Teoria Probabilităților, Statistică și Aplicații – *Stochastic variational inequalities with oblique reflecting directions: a convex to non-convex journey*, Academia Română, Bucharest, April 19, 2019 (invited talk)
- [31] ICAPM 2019 International Conference on Applied and Pure Mathematics, *Backward stochastic dynamics driven by an unbounded subdifferential operator on a filtered probability space*, Universitatea Tehnică „Gh. Asachi” Iași, România, October 31 - November 3, 2019 (talk)

### Upcoming events (for information only)

- [32] 5<sup>th</sup> International conference "Modern Stochastics: Theory and Applications" – *Generalized Skorokhod problems on the study of SDEs featuring nonconvex constraints*, Taras Shevchenko National University of Kyiv, Ukraine, June 2-5, 2020 (talk)
- [33] 9<sup>th</sup> International Colloquium on BSDEs and Mean Field Systems – *Variational solutions for BSDEs driven by an unbounded subdifferential operator*, Annecy-le-Vieux, France, 29 June - 3 July, 2020 (talk)
- [34] 8<sup>th</sup> European Congress of Mathematics – *Stochastic evolution equations involving quasi-subdifferential operators*, Portoroz, Slovenia, July 5-11, 2020 (poster)
- [35] International Conference on Dynamical Systems, Difference and Functional Equations – *Backward stochastic dynamics driven by PDMPs via systems of PDEs*, Faculty of Applied Mathematics at the AGH University of Science and Technology, Krynica-Zdrój, Poland, 13-18 September 2020 (talk)

### Annex C: Citations (excluding auto-citations)<sup>1</sup>

Total citations with ISI / SRI score greater than 0.5: 24

#### Paper 1:

- [1] Erhan Bayraktar, Song Yao, *On (Zero-Sum) Stochastic Differential Games*, 65 pp., 2012, arXiv:1112.5744v3
- [2] Rainer Buckdahn, Juan Li, *Stochastic Differential Games with Reflection and Related Obstacle Problems for Isaacs Equations*, **Acta Math. Appl. Sin.-E.**, Vol. 27, No. 4 (2011), pp. 647-678 (ISI)
- [3] Zhou Yang, Shanjian Tang, *Dynkin Game of Stochastic Differential Equations with Random Coefficients and Associated Backward Stochastic Partial Differential Variational Inequality*, **SIAM J. Control Optim.** 51-1 (2013), pp. 64-95 (ISI)
- [4] Lucian Maticiuc, Aurel Rășcanu, Adrian Zălinescu, *Backward stochastic variational inequalities with locally bounded generators*, **An Stiint U Al I-Mat**, Tomul LX, f.2 (2014), pp. 503-526
- [5] Rui Mu, *Nonzero-sum stochastic differential games and backward stochastic differential equations*, **Ph.D. thesis**, Université du Maine, 2014. English. <NNT:2014LEMA1004>. <tel-01147660>

<sup>1</sup> The underlined journals have an ISI and RIS score greater than 0.5.

- [6] Erhan Bayraktar, Song Yao, *Doubly Reflected BSDEs with Integrable Parameters and Related Dynkin Games*, **Stoch. Proc. App.**, Volume 125, Issue 12, (December 2015), pp. 4489–4542 (ISI)
- [7] Erhan Bayraktar, Song Yao, *On the Robust Dynkin Game*, **Ann. Appl. Probab.**, Volume: 27 Issue: 3 (June 2017), pp.1702-1755 (ISI)
- [8] Zhou Yang, Hyeng Keun Koo, *Optimal Consumption and Portfolio Selection with Early Retirement Option*, **Math. Oper. Res.**, <https://doi.org/10.1287/moor.2017.0909> (ISI)
- [9] Monia Karouf, *Reflected solutions of backward doubly SDEs driven by Brownian motion and Poisson random measure*, **Discrete Cont. Dyn-A**, 39(10) (October 2019), pp.5571-5601 (ISI)

*Paper 3:*

- [10] Viorel Barbu, Zdzislaw Brzezniak, Erika Hasusenblas, Luciano Tubaro, *Existence and convergence results for infinite dimensional nonlinear stochastic equations with multiplicative noise*, **Stoch. Proc. App.**, Volume 123, Issue 3, (March 2013), pp. 934-951 (ISI)
- [11] Bakarime Diomande, Lucian Maticiuc, *Multivalued backward stochastic differential equations with time delayed generators*, **Open Mathematics** (formerly Cent. Eur. J. Math.), Volume 12, Issue 11 (2014), pp. 1624-1637 (ISI)
- [12] Lucian Maticiuc, Aurel Răşcanu, *Backward Stochastic Variational Inequalities on Random Interval*, **Bernoulli**, no. 2 (2015), pp. 1166-1199 (ISI)
- [13] Lucian Maticiuc, Aurel Răşcanu, Leszek Ślominski, Mateusz Topolewski, *Càdlàg Skorokhod problem driven by a maximal monotone operator*, **J. Math. Anal. Appl.**, no. 2 (2015), pp. 1305-1346 (ISI)
- [14] Rainer Buckdahn, Lucian Maticiuc, Etienne Pardoux, Aurel Răşcanu, *Stochastic Variational Inequalities on Non-Convex Domains*, **J. Differ. Equations**, vol. 259, no. 12 (2015), pp. 7332-7374 (ISI)
- [15] Anouar M. Gassous, *A Skorokhod problem driven by Clarke subdifferential and applications to SDEs*, **An Stiint U Al I-Mat**, Tomul LXII, f.2, vol. 1 (2016), pp. 285-303
- [16] Mohammad Hossein Alizadeh, *Fitzpatrick function for generalized monotone operators*, 10pp., 2017, arXiv:1801.04519

*Paper 4:*

- [17] Lucian Maticiuc, Aurel Răşcanu, Adrian Zălinescu, *Backward stochastic variational inequalities with locally bounded generators*, **An Stiint U Al I-Mat**, Tomul LX, f.2 (2014), pp. 503-526
- [18] Bakarime Diomande, Lucian Maticiuc, *Multivalued backward stochastic differential equations with time delayed generators*, **Open Mathematics** (formerly Cent. Eur. J. Math.), Volume 12, Issue 11 (2014), pp. 1624-1637 (ISI)
- [19] Kazem Nouri, Hasan Ranjbar, *Mean Square Convergence of the Numerical Solution of Random Differential Equations*, **Mediterr. J. Math.**, Volume 12, Issue 3 (July 2015), pp 1123-1140 (ISI)
- [20] Lucian Maticiuc, Aurel Răşcanu, *Backward Stochastic Variational Inequalities on Random Interval*, **Bernoulli**, no. 2 (2015), pp. 1166-1199 (ISI)

*Paper 5:*

- [21] Dan Goreac, *Some topics in deterministic and stochastic control: LP methods, PDMP associated to gene networks, controllability*, **Habilitation Thesis**, defended on September 16, 2013, Université Paris-Est Marne-la-Vallée
- [22] Adrian Zălinescu, *Stochastic variational inequalities with jumps*, **Stoch. Proc. App.**, Volume 124, Issue 1, (January 2014), pp. 785-811 (ISI)
- [23] Etienne Pardoux, Aurel Răşcanu, *Stochastic Differential Equations, Backward SDEs, Partial Differential Equations*, Springer, XVII, 675 p, 2014
- [24] Lucian Maticiuc, Aurel Răşcanu, Leszek Ślominski, Mateusz Topolewski, *Càdlàg Skorokhod problem driven by a maximal monotone operator*, **J. Math. Anal. Appl.**, no. 2 (2015), pp. 1305-1346 (ISI)
- [25] Anouar M. Gassous, *A Skorokhod problem driven by Clarke subdifferential and applications to SDEs*, accepted for publication at **An Stiint U Al I-Mat**, DOI: 10.2478/aicu-2013-0027
- [26] Rainer Buckdahn, Lucian Maticiuc, Etienne Pardoux, Aurel Răşcanu, *Stochastic Variational Inequalities on Non-Convex Domains*, **J. Differ. Equations**, vol. 259, no. 12 (2015), pp. 7332-7374 (ISI)
- [27] Dominique Lepingle, *A two-dimensional oblique extension of Bessel processes*, 22 pp., arXiv:1506.05591v1

*Paper 7:*

- [28] Lucian Maticiuc, Aurel Răşcanu, Leszek Ślominski, Mateusz Topolewski, *Càdlàg Skorokhod problem driven by a maximal monotone operator*, **J. Math. Anal. Appl.**, no. 2 (2015), pp. 1305-1346 (ISI)
- [29] Rainer Buckdahn, Lucian Maticiuc, Etienne Pardoux, Aurel Răşcanu, *Stochastic Variational Inequalities on Non-Convex Domains*, **J. Differ. Equations**, vol. 259, no. 12 (2015), pp. 7332-7374 (ISI)

[30] Viorel Barbu, Stefano Bonaccorsi, Luciano Tubaro, *Stochastic differential equations with variable structure driven by multiplicative Gaussian noise and sliding mode dynamic*, **Math. Control Signals Syst.**, 28 (2016), no. 3, Art. 26, doi:10.1007/s00498-016-0178-1 (ISI) 05591v1

Paper 8:

[31] Liping Xu, Jiaowan Luo, *Invariance of Closed Convex Sets for Stochastic Functional Differential Equations*, **Mediterr. J. Math.**, August 2018, 15: 162, <https://doi.org/10.1007/s00009-018-1199-4> (ISI)

Paper 9:

[32] Lucian Maticiuc, Aurel Răşcanu, *On the continuity of the probabilistic representation of a semilinear Neumann–Dirichlet problem*, **Stoch. Proc. App.**, Volume 126, Issue 2 (February 2016), pp. 572–607 (ISI)

[33] Jean-François Chassagneux, Adrien Richou, *Obliquely Reflected BSDEs*, 48 pp., 2017, arXiv:1710.08989v1

Paper 11:

[34] Dan Goreac, *Nonequivalence of Controllability Properties for Piecewise Linear Markov Switch Processes*, ESAIM: ProcS, Volume 57 (2017) ETAMM 2016 - *Emerging Trends in Applied Mathematics and Mechanics*, pp. 37-47

[35] Dan Goreac, *Controllability Issues for Randomly Switching Piecewise Linear Markov Processes*, IFAC-PapersOnLine (Elsevier), Volume 50, Issue 1, July 2017, Pages 3871-3876

[36] Dan Goreac, *Approximately Reachable Directions for Piecewise Linear Switched Systems*, **Math. Control Signals Syst.**, Volume 31, Issue 3, pp 333–362, September 2019 (ISI)

Paper 13:

[37] Jonas M. Tölle, *Stochastic evolution equations with singular drift and gradient noise via curvature and commutation conditions*, **Stoch. Process. Appl.**, <https://doi.org/10.1016/j.spa.2019.09.011>, available online September 2019 (ISI)

