

LISTA DE LUCRĂRI

1. Cele mai relevante 10 articole pentru realizările profesionale obținute ulterior conferirii titlului de doctor în 2002

- [1] **B. Sasu**, A. L. Sasu, On the dichotomic behavior of discrete dynamical systems on the half-line, *Discrete and Continuous Dynamical Systems* 33 (2013), 3057-3084.
- [2] **B. Sasu**, A. L. Sasu, Nonlinear criteria for the existence of the exponential trichotomy in infinite dimensional spaces, *Nonlinear Analysis* 74 (2011), 5097-5110.
- [3] **B. Sasu**, Input-output control systems and dichotomy of variational difference equations, *Journal of Difference Equations and Applications* 17 (2011), 889-913.
- [4] **B. Sasu**, Integral conditions for exponential dichotomy: a nonlinear approach, *Bulletin des Sciences Mathematiques* 134 (2010), 235-246.
- [5] **B. Sasu**, Robust stability and stability radius for variational control systems, *Abstract and Applied Analysis* (2008), Article ID 381791, 1–29.
- [6] **B. Sasu**, New criteria for exponential expansiveness of variational difference equations, *Journal of Mathematical Analysis and Applications* 327 (2007), 287-297.
- [7] **B. Sasu**, Uniform dichotomy and exponential dichotomy of evolution families on the half-line, *Journal of Mathematical Analysis and Applications* 323 (2006), 1465-1478.
- [8] **B. Sasu**, A. L. Sasu, Exponential dichotomy and (ℓ^p, ℓ^q) -admissibility on the half-line, *Journal of Mathematical Analysis and Applications* 316 (2006), 397-408.
- [9] **B. Sasu**, A. L. Sasu, Input-output conditions for the asymptotic behavior of linear skew-product flows and applications, *Communications on Pure and Applied Analysis* 5 (2006), 551-569.
- [10] **B. Sasu**, A. L. Sasu, Exponential trichotomy and p -admissibility for evolution families on the real line, *Mathematische Zeitschrift* 253 (2006), 515-536.

2. Teza de doctorat

- [1] **B. Sasu**, Comportări asimptotice ale familiilor de evoluție, Universitatea de Vest din Timișoara, teză susținută în 16.03.2002, Conducător științific: Prof. Dr. Mihail Megan.

3. Cărți și capitole în cărți

3.1. Monografii științifice de specialitate

- [1] **B. Sasu**, Sisteme variaționale, Editura Politehnica, 2009, 212 pagini.
- [2] **B. Sasu**, Comportări asimptotice ale sistemelor autonome, Editura Politehnica, 2005, 232 pagini.
- [3] M. Megan, A. L. Sasu, **B. Sasu**, The Asymptotic Behaviour of Evolution Families, Editura Mirton, 2003, 228 pagini.

3.2 Cursuri universitare

- [4] M. Megan, A. L. Sasu, **B. Sasu**, Modelări matematice și comportări asimptotice ale sistemelor cu control, Editura Politehnica, 2008, 238 pagini.
- [5] **B. Sasu**, A. L. Sasu, Sisteme dinamice discrete, Editura Politehnica, 2006, 206 pagini.
- [6] A. L. Sasu, **B. Sasu**, Sisteme liniare cu control, Editura Politehnica, 2003, 282 pagini.

3.3 Capitole în cărți

- [7] **B. Sasu**, A. L. Sasu, Chapter 19: On stabilizability and detectability of variational control systems, pp. 441-454, Book: Robust Control, Theory and Applications, 2011, INTECH Austria, Viena, ISBN: 978-953-7619-X-X.

4. Articole publicate în reviste din fluxul științific internațional principal

4.1. Articole publicate în reviste clasificate ISI

- [1] **B. Sasu**, A. L. Sasu, On the dichotomic behavior of discrete dynamical systems on the half-line, Discrete and Continuous Dynamical Systems 33 (2013), 3057-3084.
- [2] A. L. Sasu, **B. Sasu**, On the asymptotic behavior of autonomous systems, Asymptotic Analysis, DOI 10.3233/ASY-121161, in press, corrected proofs
- [3] A. L. Sasu, M. G. Babuția, **B. Sasu**, Admissibility and nonuniform exponential dichotomy on the half-line, Bulletin des Sciences Mathématiques 137 (2013), 466-484.
- [4] A. L. Sasu, M. Megan, **B. Sasu**, On Rolewicz-Zabczyk techniques in the stability theory of dynamical systems, Fixed Point Theory 13 (2012), 205-236.
- [5] **B. Sasu**, A. L. Sasu, Nonlinear criteria for the existence of the exponential trichotomy in infinite dimensional spaces, Nonlinear Analysis 74 (2011), 5097-5110.

- [6] A. L. Sasu, **B. Sasu**, Input-output admissibility and exponential trichotomy of difference equations, *Journal of Mathematical Analysis and Applications* 380 (2011), 17-32.
- [7] A. L. Sasu, **B. Sasu**, Translation invariant spaces and asymptotic properties of variational equations, *Abstract and Applied Analysis* (2011), Article ID 539026, 1-36.
- [8] A. L. Sasu, **B. Sasu**, Integral equations and exponential trichotomy of skew-product flows, *Advances in Difference Equations* (2011), Article ID 918274, 1–18.
- [9] **B. Sasu**, Input-output control systems and dichotomy of variational difference equations, *Journal of Difference Equations and Applications* 17 (2011), 889-913.
- [10] **B. Sasu**, Stability of difference equations and applications to robustness problems, *Advances in Difference Equations* (2010), Article ID 869608, 1-24.
- [11] **B. Sasu**, Integral conditions for exponential dichotomy: a nonlinear approach, *Bulletin des Sciences Mathematiques* 134 (2010), 235-246.
- [12] A. L. Sasu, **B. Sasu**, Integral equations in the study of the asymptotic behavior of skew-product flows, *Asymptotic Analysis* 68 (2010), 135-153.
- [13] A. L. Sasu, **B. Sasu**, Integral equations, dichotomy of evolution families on the half-line and applications, *Integral Equations and Operator Theory* 66 (2010), 113-140.
- [14] A. L. Sasu, **B. Sasu**, Exponential trichotomy for variational difference equations, *Journal of Difference Equations and Applications* 15 (2009), 693-718.
- [15] **B. Sasu**, On exponential dichotomy of variational difference equations, *Discrete Dynamics in Nature and Society* (2009), Article ID 324273, 1-18.
- [16] **B. Sasu**, On dichotomous behavior of variational difference equations and applications, *Discrete Dynamics in Nature and Society* (2009), Article ID 140369, 1–16.
- [17] **B. Sasu**, On the stability roughness of discrete dynamical systems in infinite-dimensional spaces, *Carpathian Journal of Mathematics* 25 (2009), 228-238.
- [18] **B. Sasu**, Robust stability and stability radius for variational control systems, *Abstract and Applied Analysis* (2008), Article ID 381791, 1–29.
- [19] A. L. Sasu, **B. Sasu**, On the initial unstable subspace in the study of exponential dichotomy on the half-line, *Analele Științifice ale Universității Al. I. Cuza din Iași* 65 (2008), 279–291.
- [20] **B. Sasu**, New criteria for exponential expansiveness of variational difference equations, *Journal of Mathematical Analysis and Applications* 327 (2007) 287-297.
- [21] **B. Sasu**, Uniform dichotomy and exponential dichotomy of evolution families on the half-line, *Journal of Mathematical Analysis and Applications* 323 (2006), 1465-1478.

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- [23] **B. Sasu**, A. L. Sasu, Input-output conditions for the asymptotic behavior of linear skew-product flows and applications, *Communications on Pure and Applied Analysis* 5 (2006), 551-569.
- [24] **B. Sasu**, A. L. Sasu, Exponential trichotomy and p -admissibility for evolution families on the real line, *Mathematische Zeitschrift* 253 (2006), 515-536.
- [25] A. L. Sasu, **B. Sasu**, Exponential dichotomy on the real line and admissibility of function spaces, *Integral Equations and Operator Theory* 54 (2006), 113-130.
- [26] A. L. Sasu, **B. Sasu**, Discrete admissibility, l^p -spaces and exponential dichotomy on the real line, *Dynamics of Continuous Discrete and Impulsive Systems Series A Mathematical Analysis* 13 (2006), 551-561.
- [27] A. L. Sasu, **B. Sasu**, Exponential dichotomy and admissibility for evolution families on the real line, *Dynamics of Continuous Discrete and Impulsive Systems Series A Mathematical Analysis* 13 (2006), 1-26.
- [28] **B. Sasu**, Generalizations of a theorem of Rolewicz, *Applicable Analysis* 84 (2005), 1165 - 1172.
- [29] M. Megan, A. L. Sasu, **B. Sasu**, Theorems of Perron type for uniform exponential stability of linear skew-product semiflows, *Dynamics of Continuous Discrete and Impulsive Systems Series A Mathematical Analysis* 12 (2005), 23-43.
- [30] A. L. Sasu, **B. Sasu**, A lower bound for the stability radius of time-varying systems, *Proceedings of the American Mathematical Society* 132 (2004), 3653-3659.
- [31] A. L. Sasu, **B. Sasu**, Exponential stability for linear skew-product flows, *Bulletin des Sciences Mathematiques* 128 (2004), 727-738.
- [32] **B. Sasu**, A. L. Sasu, Stability and stabilizability for linear systems of difference equations, *Journal of Difference Equations and Applications* 10 (2004), 1085-1105.
- [33] M. Megan, A. L. Sasu, **B. Sasu**, Perron conditions for pointwise and global exponential dichotomy of linear skew-product flows, *Integral Equations and Operator Theory* 50 (2004), 489-504.
- [34] M. Megan, **B. Sasu**, A. L. Sasu, Exponential expansiveness and complete admissibility for evolution families, *Czechoslovak Mathematical Journal* 54 (2004), 739-749.
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- [38] M. Megan, **B. Sasu**, A. L. Sasu, On nonuniform exponential dichotomy of evolution operators in Banach spaces, *Integral Equations and Operator Theory* 44 (2002), 71-78.
- [39] M. Megan, A. L. Sasu, **B. Sasu**, On uniform exponential stability of linear skew-product semiflows in Banach spaces, *Bulletin of the Belgian Mathematical Society Simon Stevin* 9 (2002), 143-154.
- [40] M. Megan, A. L. Sasu, **B. Sasu**, A. Pogan, Exponential stability and unstability of semigroups of linear operators in Banach spaces, *Mathematical Inequalities and Applications* 5 (2002), 557-567.¹

4.2. Articole publicate în alte jurnale din străinătate

- [41] **B. Sasu**, Exponential expansiveness and variational integral equations, *Advances in Dynamical Systems and Applications* 1 (2006), 191–198.
- [42] **B. Sasu**, On exponential dichotomy of semigroups, *Acta Mathematica Universitatis Comenianae* 75 (2006), 55-61.
- [43] M. Megan, A. L. Sasu, **B. Sasu**, Exponential instability of linear skew-product semiflows in terms of Banach function spaces, *Results in Mathematics* 45 (2004), 309-318.
- [44] M. Megan, A. L. Sasu, **B. Sasu**, Exponential stability and exponential instability for linear skew-product flows, *Mathematica Bohemica* 129 (2004), 225-243.
- [45] **B. Sasu**, Perron conditions for exponential expansiveness of one-parameter semigroups, *Matematiche (Catania)* 58 (2003), 101-115.
- [46] M. Megan, A. L. Sasu, **B. Sasu**, Banach function spaces and exponential instability of evolution families, *Archivum Mathematicum (Brno)* 39 (2003), 277-286.
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- [48] M. Megan, **B. Sasu**, A. L. Sasu, Theorems of Perron type for evolution operators, *Rendiconti di Matematica (Roma)* 21 (2001), 231-244.

¹Proceedings of International Conference on Inequalities 2001.

- [49] M. Megan, A. L. Sasu, **B. Sasu**, Perron conditions and uniform exponential stability of linear skew-product semiflows on locally compact spaces, *Acta Mathematica Universitatis Comenianae* 70 (2001), 229-240.
- [50] M. Megan, **B. Sasu**, A. L. Sasu, On uniform exponential stability of evolution families, *Rivista di Matematica della Università di Parma* 4 (2001), 27-43.
- [51] M. Megan, **B. Sasu**, A. L. Sasu, Nonuniform exponential unstability of evolution operators in Banach spaces, *Glasnik Matematički* 56 (2001), 287-296.
- [52] M. Megan, A. L. Sasu, **B. Sasu**, On uniform exponential stability of periodic evolution operators in Banach spaces, *Acta Mathematica Universitatis Comenianae* 69 (2000), 97-106.

4.3. Articole publicate în reviste din România indexate în baze de date internaționale

- [53] **B. Sasu**, Complete admissibility and exponential expansiveness of difference equations, *Analele Universității de Vest din Timișoara Seria Matematică Informatică* 47 (2009), fasc. 3, 177-186.
- [54] A. L. Sasu, **B. Sasu**, Input-output conditions for exponential trichotomy of dynamical systems, *Revue d'Analyse Numérique et de Théorie de l'Approximation* 37 (2008), 209-215.
- [55] **B. Sasu**, Exponential stability and exponential dichotomy of semigroups of linear operators, *Mathematica* 48 (2006), 77-84.
- [56] **B. Sasu**, Discrete orbits and exponential stability of evolution families, *Analele Universității de Vest din Timișoara Seria Matematică Informatică* 42 (2004), fasc. 1, 129-140.
- [57] **B. Sasu**, Exponential stability of discrete time-varying systems, *Analele Universității de Vest din Timișoara Seria Matematică Informatică* 42 (2004), fasc. 2, 97-103.
- [58] **B. Sasu**, Uniform exponential expansiveness for evolution families on the real line, *Analele Universității de Vest din Timișoara Seria Matematică Informatică* 41 (2003), fasc. 2, 113-128.
- [59] M. Megan, A. L. Sasu, **B. Sasu**, Theorems of Rolewicz type for periodic evolution operators, *Mathematical Reports* 54 (2002), 389-399.
- [60] M. Megan, A. L. Sasu, **B. Sasu**, On a theorem of Rolewicz type for linear skew-product semiflows, *Fixed Point Theory* 3 (2002), 63-72.
- [61] M. Megan, A. L. Sasu, **B. Sasu**, An evolution semigroup approach for exponential stability of linear skew-product semiflows, *Analele Universității din Craiova Seria Matematică-Informatică* 29 (2002), 40-46.

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5. Articole publicate în extenso în volume de conferințe - selecție

- [1] A. L. Sasu, **B. Sasu**, Stability and stabilizability of variational discrete systems, pp. 1049-1058, Vol. III, *Proceedings of the International Conference on Computational and Mathematical Methods in Science and Engineering*, 2011, ISBN 978-84-614-6167-7.
- [2] **B. Sasu**, A. L. Sasu, Input-output conditions for expansiveness of dynamical systems, Chapter 22, pp. 240–246, *Proceedings of The International Conference on Math. Problems in Engineering, Aerospace and Sciences: ICNPAA 2008*, Cambridge Scientific Publishers 2009, ISBN: 978-1-904-86880-4.
- [3] M. Megan, A. L. Sasu, **B. Sasu**, Uniform exponential dichotomy and admissibility for linear skew-product semiflows, *Recent Advances in Operator Theory, Operator Algebras and Their Applications, Operator Theory Advances and Applications* 153 (2005), 185-195, Birkhäuser Basel, *Proceedings of the XIXth International Conference on Operator Theory*, 2002, ISBN: 978-3-7643-7127-2 (ISI Proceedings).

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