

PUBLICATIONS LIST

1. Articles published in journals

1.1. Articles published in journals indexed in Web of Science¹

- [1] D. Dragičević, A. L. Sasu, B. Sasu, A. Șirianțu, Zabczyk type criteria for asymptotic behavior of dynamical systems and applications, *Journal of Dynamics and Differential Equations* (2023), 1–46 (<https://doi.org/10.1007/s10884-023-10303-0>)
- [2] D. Dragičević, A. L. Sasu, B. Sasu, On the robustness of polynomial dichotomy of discrete nonautonomous systems, *Carpathian Journal of Mathematics*, 40 (2024), 643-654.²
- [3] A. L. Sasu, B. Sasu, Input-output criteria for the trichotomic behaviors of discrete dynamical systems, *Journal of Differential Equations* 351 (2023), 277–323.
- [4] D. Dragičević, A. L. Sasu, B. Sasu, On stability of discrete dynamical systems: from global methods to ergodic theory approaches, *Journal of Dynamics and Differential Equations* 34 (2022), 1107-1137.
- [5] D. Dragičević, A. L. Sasu, B. Sasu, L. Singh, Nonuniform input-output criteria for exponential expansiveness of discrete dynamical systems and applications, *Journal of Mathematical Analysis and Applications*, 515 (2022), 1-37.
- [6] D. Dragičević, A. L. Sasu, B. Sasu, Input-output criteria for stability and expansiveness of dynamical systems, *Applied Mathematics and Computation* 414 (2022), 1-22.
- [7] D. Dragičević, A. L. Sasu, B. Sasu, On polynomial dichotomies of discrete nonautonomous systems on the half-line, *Carpathian Journal of Mathematics* 38² (2022), 663-680.
- [8] D. Dragičević, A. L. Sasu, B. Sasu, Admissibility and polynomial dichotomy of discrete nonautonomous systems, *Carpathian Journal of Mathematics*, 38² (2022), 737-732.

¹Journals with impact factors, according to *2022 Journal Citation Reports (June 2023)*, *Web of Science, Clarivate Analytics*.

²Article dedicated to Dr. Dan Tiba on the occasion of his 70th anniversary.

²Special issue dedicated to Professor Emeritus Mihail Megan on the occasion of his 75th anniversary.

- [9] A. L. Sasu, B. Sasu, Strong exponential dichotomy of discrete nonautonomous systems: input-output criteria and strong dichotomy radius, *Journal of Mathematical Analysis and Applications* 504 (2021), Article ID 125373, 1-29.
- [10] A. L. Sasu, B. Sasu, Admissibility criteria for nonuniform dichotomic behavior of nonautonomous systems on the whole line, *Applied Mathematics and Computation* 378 (2020), Article ID 125167, 1-18.
- [11] D. Dragičević, A. L. Sasu, B. Sasu, On the asymptotic behavior of discrete dynamical systems - An ergodic theory approach, *Journal of Differential Equations* 268 (2020), 4786-4829
- [12] A. L. Sasu, B. Sasu, Exponential trichotomy and (r, p) -admissibility for discrete dynamical systems, *Discrete and Continuous Dynamical Systems Series B* 22 (2017), 3199-3220.
- [13] A. L. Sasu, B. Sasu, Admissibility and exponential trichotomy of dynamical systems described by skew-product flows, *Journal of Differential Equations* 260 (2016), 1656-1689.
- [14] A. L. Sasu, B. Sasu, Discrete admissibility and exponential trichotomy of dynamical systems, *Discrete and Continuous Dynamical Systems* 34 (2014), 2929-2962.
- [15] A. L. Sasu, B. Sasu, A Zabczyk type method for the study of the exponential trichotomy of discrete dynamical systems, *Applied Mathematics and Computation* 245 (2014), 447-461.
- [16] 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.
- [17] A. L. Sasu, B. Sasu, On the asymptotic behavior of autonomous systems, *Asymptotic Analysis* 83 (2013), 303-329.
- [18] 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.
- [19] 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.
- [20] B. Sasu, Input-output control systems and dichotomy of variational difference equations, *Journal of Difference Equations and Applications* 17 (2011), 889-913.
- [21] B. Sasu, A. L. Sasu, Nonlinear criteria for the existence of the exponential trichotomy in infinite dimensional spaces, *Nonlinear Analysis - Theory Methods & Applications* 74 (2011), 5097-5110.
- [22] A. L. Sasu, B. Sasu, Input-output admissibility and exponential trichotomy of difference equations, *Journal of Mathematical Analysis and Applications* 380 (2011), 17-32.

- [23] A. L. Sasu, B. Sasu, Integral equations and exponential trichotomy of skew-product flows, *Advances in Difference Equations* (2011), Article ID 918274, 1-18.
- [24] B. Sasu, Integral conditions for exponential dichotomy: A nonlinear approach, *Bulletin des Sciences Mathématiques* 134 (2010), 235-246.
- [25] B. Sasu, Stability of difference equations and applications to robustness problems, *Advances in Difference Equations* (2010), Article ID 869608, 1-24.
- [26] A. L. Sasu, B. Sasu, Integral equations in the study of the asymptotic behavior of skew-product flows, *Asymptotic Analysis* 68 (2010), 135-153.
- [27] 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.
- [28] A. L. Sasu, B. Sasu, Exponential trichotomy for variational difference equations, *Journal of Difference Equations and Applications* 15 (2009), 693-718.
- [29] B. Sasu, On exponential dichotomy of variational difference equations, *Discrete Dynamics in Nature and Society* (2009), Article ID 324273, 1-18.
- [30] B. Sasu, On dichotomous behavior of variational difference equations and applications, *Discrete Dynamics in Nature and Society* (2009), Article ID 140369, 1-16.
- [31] B. Sasu, On the stability roughness of discrete dynamical systems in infinite-dimensional spaces, *Carpathian Journal of Mathematics* 25 (2009), 228-238.
- [32] B. Sasu, New criteria for exponential expansiveness of variational difference equations, *Journal of Mathematical Analysis and Applications* 327 (2007) 287-297.
- [33] 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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- [35] 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.
- [36] B. Sasu, A. L. Sasu, Exponential trichotomy and p -admissibility for evolution families on the real line, *Mathematische Zeitschrift* 253 (2006), 515-536.
- [37] 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.
- [38] B. Sasu, Generalizations of a theorem of Rolewicz, *Applicable Analysis* 84 (2005), 1165 - 1172.

- [39] 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.
- [40] A. L. Sasu, B. Sasu, Exponential stability for linear skew-product flows, *Bulletin des Sciences Mathématiques* 128 (2004), 727-738.
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- [42] 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.
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- [44] 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.
- [45] M. Megan, A. L. Sasu, B. Sasu, Discrete admissibility and exponential dichotomy for evolution families, *Discrete and Continuous Dynamical Systems* 9 (2003), 383-397.
- [46] M. Megan, A. L. Sasu, B. Sasu, Theorems of Perron type for uniform exponential dichotomy of linear skew-product semiflows, *Bulletin of the Belgian Mathematical Society Simon Stevin* 10 (2003), 1-21.
- [47] M. Megan, A. L. Sasu, B. Sasu, Perron conditions for uniform exponential expansiveness of linear skew-product flows, *Monatshefte für Mathematik* 138 (2003), 145-157.
- [48] 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.
- [49] 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.
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**1.2. Articles published in journals indexed in Web of Science
in the publication year ²**

- [54] A. L. Sasu, B. Sasu, Translation invariant spaces and asymptotic properties of variational equations, *Abstract and Applied Analysis* (2011), Article ID 539026, 1-36.
- [55] B. Sasu, Robust stability and stability radius for variational control systems, *Abstract and Applied Analysis* (2008), Article ID 381791, 1-29.
- [56] A. L. Sasu, B. Sasu, On the unstable initial complement in exponential dichotomy on the half-line, *Scientific Annals of the Alexandru Ioan Cuza University of Iași (New Series). Mathematics*³ 54 (2008), 279-291.
- [57] 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.
- [58] 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.
- [59] 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.
- [60] 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.

1.3. Articles published in other journals indexed in JCI category Web of Science ⁴

- [61] B. Sasu, On exponential dichotomy of semigroups, *Acta Mathematica Universitatis Comenianae* 75 (2006), 55-61.

²According to *Web of Science (Clarivate Analytics)*, *JCR June 2023*.

³Analele Științifice ale Universității „Al. I. Cuza“ din Iași (in Romanian).

⁴Journals that do not have yet an impact factor, according to *JCR Web of Science*, June 2023.

- [62] M. Megan, A. L. Sasu, B. Sasu, Exponential stability and exponential instability for linear skew-product flows, *Mathematica Bohemica* 129 (2004), 225-243.
- [63] M. Megan, A. L. Sasu, B. Sasu, Banach function spaces and exponential instability of evolution families, *Archivum Mathematicum (Brno)* 39 (2003), 277-286.
- [64] B. Sasu, Perron conditions for exponential expansiveness of one-parameter semi-groups, *Matematiche (Catania)* 58 (2003), 101-115.
- [65] 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.
- [66] 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.
- [67] 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.

1.4. Articles published in other journals from abroad

- [68] B. Sasu, Exponential expansiveness and variational integral equations, *Advances in Dynamical Systems and Applications* 1 (2006), 191-198.
- [69] M. Megan, B. Sasu, A. L. Sasu, Theorems of Perron type for evolution operators, *Rendiconti di Matematica (Roma)* 21 (2001), 231-244.

1.5. Articles published in Romanian journals

- [70] A. L. Sasu, B. Sasu, On some dichotomy properties of dynamical systems on the whole line, *Ann. Acad. Rom. Sci. Ser. Math. Appl.* 11 (2019), 175-201.
- [71] B. Sasu, Complete admissibility and exponential expansiveness of difference equations, *Annals of West University of Timișoara - Mathematics and Computer Science*⁵ 47 (2009), fasc. 3, 177-186.
- [72] 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.
- [73] A. L. Sasu, B. Sasu, Exponential expansiveness of variational dynamical systems, *Annals of West University of Timișoara - Mathematics and Computer Science* 45 (2007), fasc. 2., 155-168.

⁵Analele Universității de Vest din Timișoara Seria Matematică Informatică (in Romanian).

- [74] B. Sasu, Exponential stability and exponential dichotomy of semigroups of linear operators, *Mathematica* 48 (2006), 77-84.
- [75] B. Sasu, Discrete orbits and exponential stability of evolution families, *Annals of West University of Timișoara - Mathematics and Computer Science* 42 (2004), fasc. 1, 129-139.
- [76] B. Sasu, Exponential stability of discrete time-varying systems, *Annals of West University of Timișoara - Mathematics and Computer Science* 42 (2004), fasc. 2, 97-103.
- [77] B. Sasu, Uniform exponential expansiveness for evolution families on the real line, *Annals of West University of Timișoara - Mathematics and Computer Science* 41 (2003), fasc. 2, 113-127.
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- [79] M. Megan, A. L. Sasu, B. Sasu, An evolution semigroup approach for exponential stability of linear skew-product semiflows, *Annals of the University of Craiova - Mathematics and Computer Science Series*⁶ 29 (2002), 40-46.
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- [82] M. Megan, A. L. Sasu, B. Sasu, Nonuniform asymptotic behaviour of evolution operators in Banach spaces, *Studia Universitatis Babeș-Bolyai Mathematica* 45 (2000), 39-50.
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⁶Analele Universității din Craiova Seria Matematică-Informatică (in Romanian).

⁷Analele Științifice ale Universității „Al. I. Cuza” din Iași (in Romanian).

2. Articles published in extenso in proceedings of conferences

2.1. Articles published in proceedings of international conferences

- [84] A. L. Sasu, B. Sasu, Stability and stabilizability of variational discrete systems, pp. 1049-1058, Vol. III, Proceedings of the 11th International Conference on Computational and Mathematical Methods in Science and Engineering, 2011, ISBN 978-84-614-6167-7.
- [85] 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.

2.2. Articles published in proceedings of national conferences

- [86] M. Megan, B. Sasu, A. L. Sasu, Admissibility and dichotomy on the half-line, Proceedings of the 9th National Conference of The Romanian Mathematical Society, 2005, 211-220.
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- [92] M. Megan, A. L. Sasu, B. Sasu, On nonuniform exponential stability and Perron condition in Banach spaces, Proceedings of the 3rd National Conference of The Romanian Mathematical Society, Craiova, 1999, 133-141.

3. Books

3.1. Mathematical Monographs

- [1] B. Sasu, Sisteme variaționale, Editura Politehnica, 2009.
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- [3] M. Megan, A. L. Sasu, B. Sasu, The Asymptotic Behaviour of Evolution Families, Editura Mirton, 2003.

3.2. Lecture Notes

- [4] B. Sasu, A. L. Sasu, Sisteme dinamice discrete, Editura Politehnica, 2013 (ediția 1 - 2006).
- [5] M. Megan, A. L. Sasu, B. Sasu, Modelări matematice și comportări asimptotice ale sistemelor cu control, Editura Politehnica, 2008.
- [6] A. L. Sasu, B. Sasu, Sisteme liniare cu control, Editura Politehnica, 2003.

3.3. Collections for Students

- [7] M. Megan, A. L. Sasu, B. Sasu, Calcul diferențial în \mathbb{R} prin exerciții și probleme, Editura Mirton 2003.
- [8] M. Megan, A. L. Sasu, B. Sasu, Calcul integral în \mathbb{R} prin exerciții și probleme, Editura Mirton 2003.
- [9] M. Megan, A. L. Sasu, B. Sasu, D. Juratoni, Lecții de analiză matematică. Primitive, Editura Brumar 2002.
- [10] M. Megan, B. Sasu, M. Neamțu, A. Crăciunescu, Bazele analizei matematice prin exerciții și probleme, Editura Helicon 1996.

3.4. Chapters in Books

- [1] 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. Editor of special issues and conferences proceedings

- [1] Carpathian Journal of Mathematics 38 (2002), no. 3 *Special issue dedicated to Professor Emeritus Mihail Megan on the occasion of his 75th anniversary*, Invited Guest Editors A. L. Sasu, B. Sasu <https://semnul.com/carpathian/issue-3-2022/>
- [2] Proceedings of the 8th National Conference on Mathematical Analysis and Applications, Timișoara December 1-2, 2006, Annals of West University of Timișoara - Mathematics and Computer Science ⁸ 45 (2007), fasc. 1, 277 pp. Editors: D. Gașpar, A. L. Sasu, B. Sasu.
- [3] Proceedings of the 8th National Conference on Mathematical Analysis and Applications, Timișoara, December 1-2, 2006, Annals of West University of Timișoara - Mathematics and Computer Science 45 (2007), fasc. 2, 249 pp. Editors: D. Gașpar, A. L. Sasu, B. Sasu.

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⁸Analele Universității de Vest din Timișoara Seria Matematică-Informatică (in Romanian).