



UNIVERSITATEA DE VEST DIN TIMIȘOARA
FACULTATEA DE MATEMATICĂ ȘI INFORMATICĂ
DEPARTAMENTUL DE MATEMATICĂ

CONF. UNIV. DR. RĂZVAN MICU TUDORAN

DOSAR DE CANDIDATURĂ

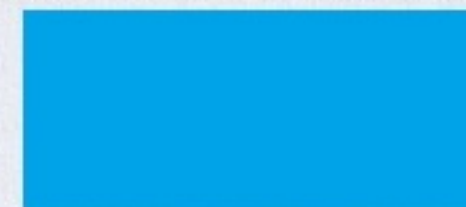
PENTRU POZIȚIA DE

MEMBRU ÎN CONSILIUL DEPARTAMENTULUI

SCRISOARE DE MOTIVARE A CANDIDATURII

Subsemnatul, Răzvan Micu TUDORAN, Conferențiar Dr. la Departamentul de Matematică al Facultății de Matematică și Informatică din cadrul Universității de Vest din Timișoara, îmi depun candidatura la funcția de membru în consiliul departamentului, deoarece doresc să susțin un învățământ matematic de calitate, în concordanță cu activitățile similare desfășurate la departamentele de matematică ale universităților de prestigiu atât din țară cât și din străinătate.

Conf. Dr. Răzvan Micu TUDORAN



Timișoara, 11.10.2023

CURRICULUM VITAE

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STUDII:

2002-2005: Doctorat în Matematică, "Docteur ès Sciences" (04.03.2005)
École Polytechnique Fédérale de Lausanne,
Lausanne, Elveția

2001-2002: Stagiu predctoral (01.10.2001-17.04.2002)
École Polytechnique Fédérale de Lausanne,
Lausanne, Elveția

1999-2001: Masterat în Matematică (2001),
Universitatea de Vest din Timișoara, Facultatea de Matematică, România

1995-1999: Licențiat în Matematică (1999),
Universitatea de Vest din Timișoara, Facultatea de Matematică, România

EXPERIENȚĂ PROFESIONALĂ:

2013- : Conferențiar, Universitatea de Vest din Timișoara, Facultatea de Matematică și Informatică, Departmentul de Matematică

2006-2013: Lector, Universitatea de Vest din Timișoara, Facultatea de Matematică și Informatică, Departmentul de Matematică

2003-2006: Asistent, Universitatea de Vest din Timișoara, Facultatea de Matematică și Informatică, Departmentul de Matematică

1999-2003: Preparator, Universitatea de Vest din Timișoara, Facultatea de Matematică, Catedra de Geometrie

DOMENII DE CERCETARE:

- Geometrie diferențială, symplectică și Poisson
- Mecanică geometrică
- Sisteme dinamice
- Matematică aplicată

PROFESOR INVITAT:

- École Polytechnique Fédérale de Lausanne, Lausanne, Elveția (Decembrie 2008, Decembrie 2007, Decembrie 2006)
- Wilfrid Laurier University, Waterloo, Alberta, Canada (Septembrie 2007)
- Keio University, Yokohama, Japonia (Aprile/Mai 2007)

MEMBRU AL ECHIPEI UNUI GRANT:

INTERNATIONAL:

- **SCOPES:** *Applied symplectic geometry and modeling of materials*, Swiss National Science Foundation project number: **IB7320-110721**, 01.10.2005 – 31.03.2008.
- **MASIE:** *Mechanics and symmetry in Europe: the geometry and dynamics of deformable systems*, EU project number: **HPRN-CT-2000-00113**, 01.06.2000 – 30.11.2004.

NATIONAL:

- **Research Grant PN-II-RU-TE-2011-3-0103:** *Asymptotic and geometric properties of dynamical systems with applications in control theory*, 2011–2014.
- **Exploratory Research Grant PN 2 ID 1081 code 550/2009:** *Qualitative properties of dynamical systems and applications to control theory*, 2009–2011.
- **Research Grant CNCSIS AT 60/2007:** *Advanced studies on qualitative aspects in the theory of control systems and applications*, 2007 – 2008.
- **Excellence Research Grant CEEEX ET 3/2006:** *Asymptotic behavior of variational systems and applications in control theory*, 2006 – 2008.

ACTIVITĂȚI EDITORIALE:

- *Mathematics*, MDPI, Elveția, ISSN: 2227-7390, (IF 2022 = 2.4), journal topical advisory panel member.
- *International Journal of Theoretical and Mathematical Physics*, Scientific & Academic Publishing, USA, p-ISSN: 2167-6844, e-ISSN: 2167-6852, editorial board member.
- *Annals of West University of Timișoara - Mathematics and Computer Science*, Online ISSN: 1841-3307, managing editor.

REFERENT ȘTIINȚIFIC:

- *Acta Applicandae Mathematicae*, Springer
- *Applied Mathematics and Computation*, Elsevier
- *Chaos, Solitons & Fractals*, Elsevier
- *Discrete and Continuous Dynamical Systems*, American Institute of Mathematical Sciences
- *Journal of Geometric Mechanics*, American Institute of Mathematical Sciences
- *Journal of Geometry and Physics*, Elsevier
- *Mathematics and Computers in Simulation*, Elsevier

- *Nonlinear Analysis: Real World Applications*, Elsevier
- *Nonlinear Dynamics*, Springer
- *Physics Letters A*, Elsevier
- *Proceedings of the Royal Society A*, Royal Society Publishing

ALTE ACTIVITĂȚI PROFESIONALE:

- Recenzor pentru “*Mathematical Reviews*”

LUCRĂRI PUBLICATE ÎN:

1. Jurnale clasificate ISI:

- On differential operators generated by geometric structures, *Journal of Geometry and Physics*, 192(2023), 104924.
- On invariant properties of natural differential operators associated to geometric structures on $\mathbb{R}^n$, *Journal of Mathematical Analysis and Applications*, 518(2)(2023), 126790.
- A note on the structure of prescribed gradient-like domains of non-integrable vector fields, *Mathematical Methods in the Applied Sciences*, 44(14)(2021), 11288-11292.
- On the coercivity of continuously differentiable vector fields, *Qualitative Theory of Dynamical Systems*, 19(2)(2020), art. no. 58.
- On the rattleback dynamics, (with A. Gîrban), *Journal of Mathematical Analysis and Applications*, 488(1)(2020), 124066.
- Dynamical systems with a prescribed globally bp-attracting set and applications to conservative dynamics, *Discrete & Continuous Dynamical Systems - A*, 40(5)(2020), 3013-3030.
- A global geometric decomposition of vector fields and applications to topological conjugacy, *Acta Applicandae Mathematicae*, 166(2020), 111-129.
- Asymptotic bp-stabilization of a given closed invariant set of a smooth dynamical system, *Journal of Differential Equations*, 267(6)(2019), 3768-3777.
- A stability criterion for non-degenerate equilibrium states of completely integrable systems, *Journal of Differential Equations*, 263(10)(2017), 6731-6763.
- Asymptotic stabilization with phase of periodic orbits of three-dimensional Hamiltonian systems, *Journal of Geometry and Physics*, 121(2017), 33-41.
- Bifurcations of limit cycles of perturbed completely integrable systems, (with A. Gîrban), *Nonlinearity*, 30(3)(2017), 1058-1088.
- A method to generate first integrals from infinitesimal symmetries, *Mediterr. J. Math.*, 13(1)(2016), 249-262.
- On the control of stability of periodic orbits of completely integrable systems, *J. Geom. Mech.*, 7(1)(2015), 109-124.
- Affine distributions on Riemannian manifolds with applications to dissipative dynamics, *J. Geom. Phys.*, 92(2015), 55-68.
- The free rigid body dynamics: Generalized versus classic, *J. Math. Phys.*, 54(7)(2013), 072704.
- Explicit Hamiltonian realizations of non-degenerate three-dimensional real linear differential systems, *Appl. Math. Lett.*, 26(10)(2013), 1031-1034.

- Complete integrability versus symmetry, *J. Math. Phys.*, 53(12)(2012), 122701.
- On a class of three dimensional quadratic Hamiltonian systems, *Appl. Math. Lett.*, 25(9)(2012), 1214-1216.
- On the completely integrable case of the Rössler system, (with A. Gîrban), *J. Math. Phys.*, 53(5)(2012), 052701.
- On a Hamiltonian version of a three dimensional Lotka-Volterra system, (with A. Gîrban), *Nonlinear Analysis: Real World Applications*, 13(5)(2012), 2304-2312.
- A normal form of completely integrable systems, *J. Geom. Phys.*, 62(5)(2012), 1167-1174.
- Non-Noether conservation laws, (with P. Birtea), *Int. J. Geom. Methods Mod. Phys.*, 9(4)(2012), 1220004.
- New aspects on the geometry and dynamics of quadratic Hamiltonian systems on $(\mathfrak{so}(3))^*$, (with C. Dăniasă, A. Gîrban), *Int. J. Geom. Methods Mod. Phys.*, 8(8)(2011), 1695-1721.
- On the Hamiltonian dynamics and geometry of the Rabinovich system, (with A. Gîrban), *Discrete and Continuous Dynamical Systems - Series B*, 15(3)(2011), 789-823.
- A Hamiltonian look at the Rikitake two-disk dynamo system, (with A. Gîrban), *Nonlinear Analysis: Real World Applications*, 11(4)(2010), 2888-2895.
- Bi-Hamiltonian structure of the Kawachi equations, (with A. Gîrban), *Int. J. Geom. Methods Mod. Phys.*, 7(4)(2010), 625-629.
- On a Hamiltonian version of the Rikitake system, (with A. Aron, Șt. Nicoară), *SIAM J. Appl. Dyn. Syst.*, 8(1)(2009), 454-479.
- On 3d Hamiltonian systems via Darboux-Weinstein coordinates, (with R.A. Tudoran), *Int. J. Geom. Methods Mod. Phys.*, 6(3)(2009), 451-459.
- On a large class of three-dimensional Hamiltonian systems, (with R.A. Tudoran), *J. Math. Phys.*, 50(1)(2009), 012703.
- Some remarks on the dynamics and geometry of an underwater vehicle, (with P. Birtea, M. Puta), *Int. J. Geom. Methods Mod. Phys.*, 5(6)(2008), 831-849.
- Some remarks on the dynamics of the underwater vehicle, (with P. Birtea, M. Puta), *Bull. Sci. Math.*, 131(7)(2007), 601-612.
- Some remarks on the Hererra-Hojman system, (with M. Puta, R.A. Tudoran, M. Boleanțu), *Int. J. Geom. Methods Mod. Phys.*, 4(6)(2007), 919-925.
- Asymptotic stability for a class of metriplectic systems, (with P. Birtea, M. Puta, M. Boleanțu), *J. Math. Phys.*, 48(8)(2007), 082703.
- Periodic orbits in the case of a zero eigenvalue, (with P. Birtea, M. Puta), *C.R. Math. Acad. Sci. Paris*, 344(12)(2007), 779-784.
- Controllability problems in the charged top dynamics, (with P. Birtea, M. Puta, C. Voicu), *Systems & Control Lett.*, 56(7-8)(2007), 512-515.
- Stability, periodic solutions and numerical integration in the Kowalevski top dynamics, (with A. Aron, P. Birtea, M. Puta, P. Șușoi), *Int. J. Geom. Methods Mod. Phys.*, 3(7)(2006), 1323-1330.
- On the symmetry breaking phenomenon, (with P. Birtea, M. Puta, T.S. Rațiu), *Int. J. Geom. Methods Mod. Phys.*, 3(4)(2006), 697-718.
- Symmetry breaking for toral actions in simple mechanical systems, (with P. Birtea, M. Puta, T.S. Rațiu), *Journal of Differential Equations*, 216 (2005), 282-323.

- A short proof of chaos in an atmospheric system, (with P. Birtea, M. Puta, T.S. Rațiu), *Phys. Lett. A*, 300(2-3)(2002), 189-191.
- Controllability, stability and the n-dimensional Toda lattice, (with M. Puta), *Bull. Sci. Math.*, 126(3)(2002), 241-247.

2. Jurnale indexate în baze de date:

- On some asymptotic properties of the Rössler dynamical system, (with A. Gîrban), *Stud. Univ. Babeș-Bolyai Math.*, 58(2013), No. 4, 503-509.
- Dissipative perturbations of quadratic Hamiltonian systems on $(\mathfrak{so}(3))^*$, (with C. Dăniașă), *An. Univ. Timisoara Ser. Mat.-Inform.*, 48(2010), fasc. 2, 159-171.
- Poisson manifolds and Bermejo-Fairén construction of Casimirs, (with R.A. Tudoran, M. Puta), *Tensor, N. S.*, 66(1)(2005), 59-70.
- Some remarks on the rigid body dynamics in a central gravitational field, (with I. Cașu, I. Ioja, M. Puta), *An. Univ. Timisoara Ser. Mat.-Inform. (Special Issue: Mathematics)*, 39(2001), 365-376.
- The determination of general solutions starting from individual solutions in the Diophantic equation $x^2 + y^2 = z^2$, *Octagon Math. Mag.* 7(1)(1999), 129-132.
- A class of rings of Bool type, *Octagon Math. Mag.* 6(2)(1998), 115-117.

CĂRȚI ȘI CAPITOLE ÎN CĂRȚI:

- Echilibre, Orbite Periodice și Stabilitate Lyapunov, Ed. Politehnica, Timișoara, 2012, x+185 pp.
- Geometria Metrică a Conicelor și Cuadricelor, (with A. Girban), Ed. Politehnica, Timișoara, 2012, vi+162 pp.
- Geometric Mechanics and Symmetry: the Peyresq Lectures; Chapter II: A Crash Course in Geometric Mechanics (with T.S. Rațiu, L. Sbano, E. Sousa Dias, G. Terra), pag. 23-156, London Mathematical Society Lecture Note Series, Vol. 306, Cambridge University Press, 2005.
- Symmetry breaking in mechanical systems, These No. 3196(2005), École Polytechnique Fédérale de Lausanne, 2005, Lausanne, Switzerland, doi: 10.5075/epfl-thesis-3196.
- Forme diferențiale exterioare. Probleme, (with P. Birtea, M. Puta), Editura Mirton, Timișoara, 1999, i+98 pp.

PARTICIPĂRI LA CONFERINȚE:

- 9th International IFS and Contemporary Mathematics and Engineering Conference, IFSCOM-E 2023, July 8-11, 2023, Tarsus, Turkey.
- 8th IFS and Contemporary Mathematics Conference, IFSCOM2022, June 16-19, 2022, Turkey.
- International Online Conference "Algebraic and Geometric Methods of Analysis" dedicated to the memory of Yuriy Trokhymchuk, May 25-28, 2021, Odesa, Ukraine.
- Conferința "Diaspora în Cercetarea Științifică și Învățământul Superior din România -

- Diaspora și prietenii săi" 2016, Workshop: Sisteme dinamice. Teorie și aplicații, Universitatea de Vest din Timișoara, 23-28 Aprilie 2016, Timișoara, România.
- The XXIIIth International Conference on Integrable Systems and Quantum Symmetries (ISQS-23), Czech Technical University Prague, 23-27 June 2015, Prague, Czech Republic.
 - Geometry and Physics Seminar, Department of Theoretical Physics, National Institute of Physics and Nuclear Engineering (IFIN-HH), 25 July 2014, Măgurele, România.
 - 2nd International Eurasian Conference on Mathematical Sciences and Applications (IECMSA - 2013), 26 - 29 August, 2013, Sarajevo, Bosnia and Herzegovina.
 - Geometry and PDE's, Zilele Academice Timișene 2013, Ediția a XIII-a, 23-24 May, 2013, Universitatea de Vest din Timișoara, Timișoara, Romania.
 - Encuentro de Geometría Diferencial, satellite congress of "IV Congreso Latinoamericano de Matemáticos", July 31 – August 3, 2012, Universidad Nacional de Rosario, Rosario, Argentina.
 - ICIAM 2011 - 7th International Congress on Industrial and Applied Mathematics, 18-22 July, 2011, Vancouver Convention Center, Vancouver, BC, Canada.
 - Geometry, Mechanics, and Dynamics: A Workshop celebrating the 60th Birthday of Tudor Ratiu, 12-16 July, 2010, CIRM, Marseille - Luminy, France.
 - PRIMA 2009, Pacific Rim Mathematical Association (PRIMA) Congress, 6-10 July, 2009, University of New South Wales, Sydney, Australia.
 - Zilele Academice Timișene 2009, Ediția a XI-a, 29 May, 2009, Universitatea de Vest din Timișoara, Timișoara, Romania.
 - Poisson 2008. Poisson geometry in mathematics and physics, 7-11 July, 2008, École Polytechnique Fédérale de Lausanne, Switzerland.
 - Dynamical Integrability, November 27-December 1st, 2006, CIRM, Marseille-Luminy, France.
 - School on Poisson Geometry and Related Topics, May 31-June 2, 2006, Keio University, Hiyoshi Campus, Raio-Sha, Yokohama, Japan.
 - Poisson Geometry in Mathematics and Physics, 5-9 June, 2006, Tokyo, Japan.
 - The 7th International Workshop on Differential Geometry and its Applications, 5- 11 September, 2005, Deva, Romania.
 - Summer School and Conference in Poisson Geometry, 4-22 July, 2005, ICTP, Trieste, Italy.
 - The 9th National Conference of The Romanian Mathematical Society, 6-7 May, 2005, Lugoj, Romania.
 - The 7-th International Conference of Tensor Society, 23-27 August, 2004, Timișoara, Romania.
 - Geometric Mechanics and its Applications, MASIE, 12-16 July, 2004, Centre Bernoulli, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland.
 - MRI Spring School 2004, Lie Groups in Analysis, Geometry and Mechanics, 3-25 June, 2004, Utrecht, The Netherlands.
 - Young European Researchers in Mechanics Meeting 2004 (YERM), Instituto Superior Técnico, 13-17 January, 2004, Lisbon, Portugal.
 - Geometry, Symmetry and Mechanics III, 5-10 May, 2003, Institut d'Etudes Scientifiques de Cargèse, Cargèse, Corse, France.

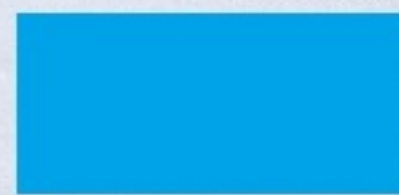
- Dynamical Systems Methods in Fluid Mechanics, July 28 – August 3, 2002, Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany.
- Symmetry and Perturbation Theory (SPT 2002), 19-26 May, 2002, Cala Gonone, Sardegna, Italy.
- MASESS II, Mechanics and Symmetry Euro Summer School, 2-15 September, 2001, Peyresq, France.
- MASESS I, Mechanics and Symmetry Euro Summer School, 3-16 September, 2000, Peyresq, France.
- The Fourth International Workshop on Differential Geometry and its Applications, 16-22 September, 1999, Braşov, Romania.
- The Eleventh National Seminar of Finsler and Lagrange Geometry, 16-20 February, 2000, Bacău, Romania.

11.10.2023

DECLARAȚIE

Subsemnatul, Răzvan Micu TUDORAN, Conferențiar Dr. la Departamentul de Matematică al Facultății de Matematică și Informatică din cadrul Universității de Vest din Timișoara, prin prezenta **declar pe proprie răspundere că nu am fost lucrător sau colaborator al securității.**

Conf. Dr. Răzvan Micu TUDORAN



Timișoara, 11.10.2023