

# CURRICULUM VITAE

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**Date and Place of Birth:** June 20, 1972, Slatina, Romania

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## Education:

- 1996: B.S. in Mathematics, University of Craiova, Romania.
- 1997: M.S. in Applied Mathematics, University of Craiova, Romania.
- 2002: Ph.D in Applied Mathematics, *Mathematical modelling in Contact Mechanics*, University of Perpignan, advisor Professor *Mircea Sofonea*.
- 2003: Ph.D in Mathematics, *Variational analysis for some boundary value problems in mechanics of deformable solids*, University of Craiova, Romania, advisor Professor *Vicentiu Rădulescu*.
- 2005: Post-doc position in the framework of the European Union Project *Non-linear approximation and adaptivity: breaking complexity in numerical modelling and data representation*, Project reference HPRN-CT-2002-00286, advisor Professor Barbara Wohlmuth, IANS-Stuttgart University.
- 2015: Habilitation Thesis "Variational approaches in the study of nonlinear problems arising in Contact Mechanics" (defended at "Simion Stoilow" Institute of Mathematics of the Romanian Academy, Bucharest, April 27, 2015)

## Professional Experience:

- 1998–2006 Assistant Professor, Department of Mathematics, University of Craiova.
- 2006–2016 Associate Professor (Lector), University of Craiova.
- 2016-present Professor, Department of Mathematics, University of Craiova.

**Main fields of interest:** nonlinear analysis, mathematical modeling by PDEs, calculus of variations, mechanics of continua, contact mechanics, numerical analysis, control problems.

**Member of the Romanian Mathematical Society:** 1999-present.

**Member of the Center for Nonlinear Analysis and its Applications of the UCV**

## PUBLICATIONS

### Research papers:

1. A. Matei, Three weak formulations for an obstacle model and their relationship, to appear.
2. A. Matei, M. Osiceanu, A variational formulation governed by two bipotentials for a frictionless contact model, *Mathematical Modelling and Analysis*, to appear.
3. A. Matei, Weak solutions for contact models involving a class of generalized materials, *Nonlinear Analysis: Real World Applications*, Volume 72, 2023, 103863, ISSN 1468-1218, <https://doi.org/10.1016/j.nonrwa.2023.103863>.
4. A. Matei, M. Osiceanu, Weak solvability via bipotentials and approximation results for a class of bilateral frictional contact problems, *Communications in Nonlinear Science and Numerical Simulation*, Volume 119, 2023, 107135, ISSN 1007-5704, <https://doi.org/10.1016/j.cnsns.2023.107135>.
5. A. Matei, M. Osiceanu, Weak solvability via bipotentials for contact problems with power-law friction, *Journal of Mathematical Analysis and Applications*, Volume 524, Issue 1, 2023, 127064, ISSN 0022-247X, <https://doi.org/10.1016/j.jmaa.2023.127064>.
6. M. Chivu Cojocaru, A. Matei, Weak solutions via two-field Lagrange multipliers for boundary value problems in mathematical physics, *Mathematical Modelling and Analysis*, Volume 27, Issue 4, 561–572, 2022. <https://doi.org/10.3846/mma.2022.15827>.
7. A. Matei, A Three-Field Variational Formulation for a Frictional Contact Problem with Prescribed Normal Stress, *Fractal Fract.*, Volume 6, Issue 11, 651 (2022).
8. A. Matei, M. Osiceanu, Two-Field Weak Solutions for a Class of Contact Models, *Mathematics* 2022, 10(3), 369; <https://doi.org/10.3390/math10030369> - 25 Jan 2022.
9. A. Matei, On a class of generalized saddle-point problems arising from contact mechanics. *Fixed Point Theory Algorithms Sci Eng* 2022, 16 (2022). <https://doi.org/10.1186/s13663-022-00726-7>

10. W. Han, A. Matei, Well-posedness of a general class of elliptic mixed hemivariational-variational inequalities, *Nonlinear Analysis: Real World Applications*, Volume 66, 2022,103553, ISSN 1468-1218, <https://doi.org/10.1016/j.nonrwa.2022.103553>.
11. W. Han, A. Matei, Minimax Principles for Elliptic Mixed Hemivariational-Variational Inequalities, *Nonlinear Analysis: Real World Applications*, 64 (2022) 103448, <https://doi.org/10.1016/j.nonrwa.2021.103448>.
12. M. Chivu Cojocaru, A. Matei, Variational approaches for contact models with multi-contact zones, *Mediterr. J. Math.* 19, 228 (2022). <https://doi.org/10.1007/s00009-022-02144-w>.
13. A. Matei, M. Osiceanu, Two-field variational formulations for a class of nonlinear mechanical models, *Mathematics and Mechanics of Solids*, first published online: 10 January 2022; <https://doi.org/10.1177/10812865211066123>, **27** (11) (2022):2532-2547.
14. A. Matei, On a new class of abstract mixed variational-hemivariational problems, *Communications in Nonlinear Science and Numerical Simulation*, Available online 14 September 2021, Volume 104, January 2022, 106046, <https://doi.org/10.1016/j.cnsns.2021.106046>.
15. M. Chivu Cojocaru, A. Matei, Saddle point formulations for a class of nonlinear boundary value problems, *Bull. Math. Soc. Sci. Math. Roumanie*, Tome 64 (112), No. 4, 355-368, 2021.
16. Chivu Cojocaru, M., and Matei, A. (2020). On a class of saddle point problems and convergence results. *Mathematical Modelling and Analysis*, 25(4), 608-621. <https://doi.org/10.3846/mma.2020.11140>.
17. Chivu Cojocaru, M., Matei, A. On the Weak Solvability Via Lagrange Multipliers for a Bingham Model. *Mediterr. J. Math.* 17, 164 (2020). <https://doi.org/10.1007/s00009-020-01596-2>
18. N. Cindea, A. Matei, S. Micu, C. Niță, Boundary optimal control for antiplane problems with power-law friction, *Applied Mathematics and Computation*, Volume 386, 1 December 2020, 125448. <https://doi.org/10.1016/j.amc.2020.125448>
19. A. Matei, M. Sofonea, Solvability and optimization for a class of mixed variational problems, *OPTIMIZATION*, 69:5, 1097-1116, 2020, DOI: 10.1080/02331934.2019.1676242
20. Sofonea, M., Matei, A. Convergence and Optimization Results for a History-Dependent Variational Problem. *Acta Appl Math* 169(1), 157–182 (2020). <https://doi.org/10.1007/s10440-019-00293-x>
21. N. Cindea, A. Matei, S. Micu, C. Niță, Boundary optimal control for antiplane problems with power-law friction, *archives-ouvertes.fr*, hal-02176637

22. A. Matei, On the relationship between alternative variational formulations of a frictional contact model, <https://doi.org/10.1016/j.jmaa.2019.123391>, *Journal of Mathematical Analysis and Applications*, Volume 480, Issue 1, 1 December 2019, 123391.
23. M. Sofonea, A. Matei, Y. Xiao, Optimal control for a class of mixed variational problems, *Z. Angew. Math. Phys.* (2019) 70: 127. <https://doi.org/10.1007/s00033-019-1173-4>.
24. M. Chivu Cojocaru, A. Matei, Well-posedness for a class of frictional contact models via mixed variational formulations, <https://doi.org/10.1016/j.nonrwa.2018.10.009>, *Nonlinear Analysis: Real World Applications*, Published online 2018, to appear 47 (2019, JUNE) 127–141.
25. A. Matei, A mixed hemivariationalvariational problem and applications, *Computers and Mathematics with Applications (CAMWA)* Available online 4 October 2018, <https://doi.org/10.1016/j.camwa.2018.08.068>, Volume 77, Issue 11, 1 June 2019, Pages 2989-3000.
26. A. Matei, S. Sitzmann, K. Willner, B. Wohlmuth, A mixed variational formulation for a class of contact problems in viscoelasticity *Applicable Analysis*, <http://dx.doi.org/10.1080/00036811.2017.1359569>, vol 97(8) 2018, 1340–1356.
27. A. Matei, S. Micu, C. Niță, Optimal control for antiplane frictional contact problems involving nonlinearly elastic materials of Hencky type *Mathematics and Mechanics of Solids*, <https://doi.org/10.1177/1081286517718605>, pp. 308–328, vol 23(3), 2018.
28. A. Matei, S. Micu, Boundary Optimal Control for a Frictional Contact Problem with Normal Compliance, *Appl Math Optim* (published online 2017). doi:10.1007/s00245-017-9410-8, October 2018, Volume 78, Issue 2, pp 379401.
29. A. Matei, M. Sofonea, A mixed variational formulation for a piezoelectric frictional contact problem, *IMA Journal of Applied Mathematics*, *IMA J Appl Math* (2017) 82 (2): 334-354.  
DOI: <https://doi.org/10.1093/imamat/hxw052>
30. A. Matei, Weak solvability via Lagrange multipliers for contact problems involving multi-contact zones, *Mathematics and Mechanics of Solids*, August 2016 vol. 21 no. 7, 826-841.
31. M. Sofonea and A. Matei, A mixed variational problem with applications in contact mechanics, *Zeitschrift für angewandte Mathematik und Physik (ZAMP)*, Volume 66, Issue 6 (2015), Page 3573-3589, 2015.
32. A. Matei, Weak solutions via Lagrange multipliers for contact models with normal compliance, *Konuralp Journal of Mathematics*, Volume 3 No. 2 (2015), 202-210.
33. M.M. Boureau, A. Matei, Singular and Degenerate Boundary Value Problems Related to the Electricity Theory, *Mathematical Problems in Engineering*, Volume 2015 (2015), Article ID 865261, 6 pages <http://dx.doi.org/10.1155/2015/865261>

34. A. Matei, Two abstract mixed variational problems and applications in Contact Mechanics, *Nonlinear Analysis Series B: Real World Application*, Vol. 22, April 2015, 592-603. <http://dx.doi.org/10.1016/j.nonrwa.2014.09.014>  
DOI: 10.1016/j.nonrwa.2014.09.014.
35. M. Sofonea and A. Matei, History-dependent Mixed Variational Problems in Contact Mechanics, *Journal of Global Optimization*, DOI 10.1007/s10898-014-0193-z, Volume 61, Issue 3 (2015), Page 591-614.
36. M. Barboteu, A. Matei and M. Sofonea, On the behavior of the solution of a viscoplastic contact problem, *Quarterly of Applied Mathematics*, 72(4) (2014), pages 625-647 (Online ISSN 1552-4485; Print ISSN 0033-569X).
37. A. Matei, Weak Solutions via Lagrange Multipliers for a Slip-dependent Frictional Contact Model, *IAENG International Journal of Applied Mathematics*, 44 (3), 2014, 151-156. Special issue WCE 2014-ICAEM;  
[http://www.iaeng.org/IJAM/issues\\_v44/issue\\_3/index.html](http://www.iaeng.org/IJAM/issues_v44/issue_3/index.html).
38. A. Matei, An existence result for a mixed variational problem arising from Contact Mechanics, *Nonlinear Analysis Series B: Real World Application*, online 20 May 2014, vol. 20, December 2014, 74-81.  
DOI: 10.1016/j.nonrwa.2014.01.010. ISSN 1468-1218
39. A. Matei, A variational approach via bipotentials for a class of frictional contact problems, *Acta Applicandae Mathematicae*, DOI: 10.1007/s10440-014-9868-1, ISSN: 0167-8019 (print version) ISSN: 1572-9036 (electronic version), 134(1) (2014), 45-59.
40. M. Boureau, A. Matei and M. Sofonea, Nonlinear problems with  $p(\cdot)$ -growth conditions and applications to antiplane contact models, *Advanced Nonlinear Studies* (ISSN 1536-1365), 14 (2) (2014), 295-313.
41. A. Matei, An evolutionary mixed variational problem arising from frictional contact mechanics, *Mathematics and Mechanics of Solids*, DOI: 10.1177/1081286512462168, 19(3) May 2014, 225 - 241, ISSN 1081-2865.
42. A. Matei, On the solvability of mixed variational problems with solution-dependent sets of Lagrange multipliers, *Proceedings of The Royal Society of Edinburgh, Section: A Mathematics*, 143(05), October 2013, 1047-1059; ISSN: 0308-2105.  
DOI:<http://dx.doi.org/10.1017/S0308210512000637>
43. S. Hübner, A. Matei, B. Wohlmuth, A contact problem for electro-elastic materials, *Journal of Applied Mathematics and Mechanics (ZAMM)*, *Z. Angew. Math. Mech.*, DOI: 10.1002/zamm.201200235, 93 (10-11), 789-800, 22 October 2013. 2013. Special Issue: Mathematical Modeling: Contact Mechanics, Phase Transitions, Multiscale Problems. In Memory of Christof Eck (Online ISSN: 1521-4001 Print ISSN: 0044-2267)

44. A. Matei, A variational approach via bipotentials for unilateral contact problems, *Journal of Mathematical Analysis and Applications*, Volume 397, Issue 1, 1 January 2013, Pages 371-380. <http://dx.doi.org/10.1016/j.jmaa.2012.07.065>; ISSN 0022-247X.
45. I. Andrei, N. Costea and A. Matei, Antiplane shear deformation of piezoelectric bodies in contact with a conductive support, *Journal of Global Optimization*; ISSN: 0925-5001 DOI 10.1007/s10898-011-9815-x; Volume 56, Issue 1, pp 103-119, May 2013.
46. M. Barboteu, A. Matei and M. Sofonea, Analysis of Quasistatic Viscoplastic Contact Problems with Normal Compliance, *The Quarterly Journal of Mechanics and Applied Mathematics*, DOI: 10.1093/qjmam/hbs016, 65(4), 555-579, Nov 2012, WOS: 000310892600005, ISSN 0033-5614.
47. S. Cleja-Tigoiu and A. Matei, Rate Boundary Value Problems and Variational Inequalities in Rate-Independent Finite Elasto-Plasticity, *Mathematics and Mechanics of Solids*, ISSN 1081-2865, DOI: 10.1177/1081286511426915, Volume: 17, Number 6, Pages: 557-586, August 2012.
48. N. Costea and A. Matei, Contact models leading to variational-hemivariational inequalities, *Journal of Mathematical Analysis and Applications*, ISSN 0022-247X, available online 12 August 2011, DOI:10.1016/j.jmaa.2011.08.025, Volume 386, Issue 2, 15 February 2012, Pages 647-660.
49. M. Boureau, A. Matei and M. Sofonea, Analysis of a Contact Problem for Electro-elastic-visco-plastic Materials, *Communications on Pure and Applied Analysis*, ISSN 1534-0392(print), ISSN 1553-5258(online), Volume: 11, Issue: 3, Pages: 1185-1203, DOI: 10.3934/cpaa.2012.11.1185 Published: MAY 2012.
50. M. Sofonea and A. Matei, History-dependent Quasivariational Inequalities arising in Contact Mechanics, *European Journal of Applied Mathematics*, ISSN 0956-7925, EISSN 1469-4425, DOI:10.1017/S0956792511000192, vol. 22, 471-491, 2011.
51. A. Matei and R. Ciurcea, Weak solutions for contact problems involving viscoelastic materials with long memory, *Mathematics and Mechanics of Solids*, ISSN 1081-2865, DOI: 10.1177/1081286511400515, Volume 16 Issue 4 June 2011 pp. 393 - 405.
52. A. Matei and C. Niculescu, Weak solutions via bipotentials in mechanics of deformable solids, *J. Math. Anal. Appl.*, DOI: 10.1016/j.jmaa.2010.12.016, Volume 379, Issue 1, 1 July 2011, Pages 15-25, 0022-247X.
53. A. Matei and S. Micu, Boundary optimal control for nonlinear antiplane problems, *Nonlinear Analysis: Theory, Methods and Applications*, DOI:10.1016/j.na.2010.10.034; 74 (5), 16411652, ISSN 0362-546X, 2011.
54. A. Matei and R. Ciurcea, Contact problems for nonlinearly elastic materials: weak solvability involving dual Lagrange multipliers, *The ANZIAM Journal*, ISSN 1446-1811, DOI: 10.1017/S1446181111000629, vol. 52, 160-178, 2010.

55. A. Matei and R. Ciurcea, Weak solvability for a class of contact problems, *Annals of the Academy of Romanian Scientists Series on Mathematics and its Applications* Volume 2, Number 1, 2010, pp. 25-44, ISSN 2066-6594.
56. N. Costea and A. Matei, Weak solutions for nonlinear antiplane problems leading to hemivariational inequalities, *Nonlinear Analysis: Theory, Methods and Applications*, DOI 10.1016/j.na.2010.01.002, Volume 72, pp. 3669-3680, ISSN 0362-546X, 2010.
57. M. Boureanu and A. Matei, Weak solutions for antiplane models involving elastic materials with degeneracies, *Zeitschrift für Angewandte Mathematik und Physik (ZAMP)*, ISSN 0044-2275, DOI 10.1007/s00033-009-0008-0, Volume 61, Issue 1, 73-85, 2010.
58. A. Matei, A variational approach for an electro-elastic unilateral contact problem, *Mathematical Modelling and Analysis*, 14(3), 323-334, ISSN 1392-6292 print, ISSN 1648-3510 online, 2009.
59. R. Ciurcea and A. Matei, Solvability of a mixed variational problem, *Ann. Univ. Craiova*, 36(1), 105-111, 2009, ISSN 1223-6934.
60. M. Sofonea, C. Avramescu and A. Matei, A Fixed point result with applications in the study of viscoplastic frictionless contact problems, *Communications on Pure and Applied Analysis*, doi:10.3934/cpaa.2008.7.645, 7(3), 645-658, 2008, ISSN 1534-0392 (print) ISSN 1553-5258 (electronic).
61. S. Hübner, A. Matei and B. Wohlmuth, Efficient algorithms for problems with friction, *SIAM Journal on Scientific Computing*, DOI: 10.1137/050634141, vol. 29, issue 1, 70-92, 2007, ISSN 1064-8275.
62. M. Sofonea and A. Matei, An elastic contact problem with adhesion and normal compliance, *Journal of Applied Analysis*, 12(1), 2006, pp. 19-36, ISSN 1425-6908.
63. M. Sofonea, C. Niculescu and A. Matei, An antiplane contact problem for viscoelastic materials with long-term memory, *Mathematical Modelling and Analysis*, 11(2), 2006, 213-228, ISSN 1392-6292 print, ISSN 1648-3510 online.
64. S. Hübner, A. Matei and B. Wohlmuth, A mixed variational formulation and an optimal a priori error estimate for a frictional contact problem in elasto-piezoelectricity, *Bull. Math. Soc. Math. Roumanie*, 48 (96), 2, 2005, 209-232, ISSN 1220 3874.
65. N. Hemicu and A. Matei, A frictionless contact problem with adhesion between two elastic bodies, *Annals Univ. Craiova*, 30(2), 90-99, 2003, ISSN 1223-6934.
66. M. Sofonea and A. Matei, A fixed point result for operators defined on spaces of vector-valued continuous functions, *Annals Univ. Craiova*, 29, 19-22, 2002, ISSN 1223-6934.
67. M. Sofonea and A. Matei, Elastic antiplane contact problem with adhesion, *Journal of Applied Mathematics and Physics (ZAMP)* 53 , 962-972, 2002.
68. L. Jianu, A. Matei and M. Sofonea, Quasistatic elasto-visco-plastic problems with friction, *Annals Univ. Bucharest, Math.*, 51, 23-38, 2002.

69. T.-V. Hoarau-Mantel and A. Matei, Analysis of a viscoelastic antiplane contact problem with slip dependent friction, *International Journal of Applied Mathematics and Computer Science*, 12(1), 51-59, 2002, ISSN 1641-876X.
70. A. Matei, V.V. Motreanu and M. Sofonea, On the Signorini frictionless contact problem for linear viscoelastic materials, *Applicable Analysis*, 80, 177-199, 2001.
71. A. Matei, V.V. Motreanu and M. Sofonea, A quasistatic antiplane contact problem with slip dependent friction, *Advances in Nonlinear Variational Inequalities*, 4(2), 1-21, 2001.
72. M. Sofonea and A. Matei, A quasistatic frictionless contact problem with normal compliance, *Annals Univ. Craiova*, 27, 43-56, 2000, ISSN 1223-6934.

### Books:

- M. Sofonea and A. Matei, *Variational Inequalities with Applications. A Study of Antiplane Frictional Contact Problems*. Advances in Mechanics and Mathematics, Vol.18, Springer, 230 pages, 2009.
- M. Sofonea and A. Matei, *Mathematical Models in Contact Mechanics*, London Mathematical Society, Lecture Note Series 398, 280 pages, Cambridge University Press, 2012.

### Research papers published in proceedings :

1. A. Matei, On the weak solvability and the optimal control of a frictional contact problem with normal compliance, IFIP AICT 494, Lorena Bociu Jean-Antoine Désidéri Abderrahmane Habbal (Eds.), System Modeling and Optimizationin, ISBN 978-3-319-55795-3( 27th IFIP TC 7 Conference, CSMO 2015 Sophia Antipolis, France, June 29 July 3, 2015 Revised Selected Papers), conference paper, pages 370-379, first online 2017.
2. D. Danciu, A. Matei, S. Micu and I. Roventa, Nonlinear Feedback Control and Artificial Intelligence Computational Methods applied to a Dissipative Dynamic Contact Problem. DOI: 10.5220/0005055005280539 In Proceedings of the 11th International Conference on Informatics in Control, Automation and Robotics (ICINCO-2014), pages 528-539, ISBN: 978-989-758-039-0.
3. A. Matei, A mixed variational formulation for a slip-dependent frictional contact model, Lecture Notes in Engineering and Computer Science: Proceedings of The World Congress on Engineering 2014, 2-4 July, 2014, Imperial College London, U.K., vol II, pp 750-754 (ISBN: 978-988-19253-5-0; ISSN 2078-0958(Print); ISSN 2078-0966(Online)).

4. A. Matei, Weak solvability via Lagrange multipliers for two frictional contact models, Proceedings of 11<sup>th</sup> French-Romanian Conference on Applied Mathematics, 2012, Bucharest, Annals of the University of Bucharest (mathematical series), 4(LXII), 179–191, 2013.
5. A. Matei, M. Sofonea, Dual formulation of a viscoplastic contact problem with unilateral constraint, Proceedings of 10<sup>th</sup> French-Romanian Conference on Applied Mathematics, 2010, Poitiers, France, Discrete and Continuous Dynamical Systems - Series S (DCDS-S), 6(6), 1587-1598, 2013.
6. A. Matei, Mixed variational formulations in contact mechanics for elasto-piezoelectric materials, *Proceedings of International Conference - Trends and Challenges in Applied Mathematics (ICTCAM, Bucharest)*, Conference Proceedings, pp. 255-259, 2008.
7. M. Sofonea and A. Matei, A mixed variational formulation for the Signorini frictionless problem in viscoplasticity, *Annals Univ. Ovidius Constanta*, 12(2), 157-170, 2004, (Proceedings of “Workshop on Applied Nonlinear Functional Analysis”, Constanta, Romania).
8. T.-V. Hoarau-Mantel and A. Matei, Frictional antiplane contact problems for viscoelastic materials with long-term memory, *Annals Univ. Craiova*, vol.32, 200-206, 2005 (Proceedings of 7<sup>th</sup> French-Romanian Conference on Applied Mathematics, 2004, University of Craiova, Romania), ISSN 1223-6934.
9. A. Matei, Antiplane contact problem for viscoelastic materials, *Annals Univ. Craiova*, 30 , 169-178, 2003 (Proceedings of 6<sup>th</sup> French-Romanian Conference on Applied Mathematics, 2002, Perpignan, France), ISSN 1223-6934.
10. A. Matei, Results on quasistatic antiplane contact problems with slip dependent friction, *Seminar on fixed point theory Cluj-Napoca, III*, 255-261, 2002 ( Proceedings of the International Conference on Nonlinear Operators, Differential Equations and Applications, 2001, Cluj- Napoca, Romania).
11. A. Matei, Variational analysis for a Signorini contact problem, *Annals. Univ. Craiova*, XXVIII, 59-67 (Proceedings of the National Conference of Nonlinear Analysis and Applications, University of Craiova, Romania, 2001), ISSN 1223-6934.
12. A. Matei, Shape memory and pseudo-elasticity, remarkable properties for a Cu-Zn-Al alloy, *Scientific communications*, 1,125-132, 2000 ( Proceedings of 3<sup>th</sup> Conference of the Romanian Mathematical Society, 1999).

## CONFERENCES/TALKS

1. The Tenth Congress of Romanian Mathematicians, June 30-July 5, 2023, Pitesti, Romania. Talk: "Three-field weak solutions for a class of boundary value problems"
2. Fifth Romanian Itinerant Seminar on Mathematical Analysis and its Applications (RISMAA 2023) Craiova, May 26-28, 2023. Talk: "Three-field weak solutions for frictional contact models with prescribed normal stress".
3. The International Conference on "Analysis and Approximation of Variational and Hemivariational Inequalities", April 10-11, 2021 (online event via Zoom). The organizers: CONMECH members Weimin Han (University of Iowa, USA), Stanislaw Migorski (Jagiellonian University in Krakow, Poland), and Mircea Sofonea (Universite de Perpignan Via Domitia, France). Invited talk: "On a Class of Mixed Variational-Hemivariational Problems" <http://ww2.ii.uj.edu.pl/migorski/CONMECHconferences.html>
4. MAAM 2017- MATHEMATICAL ANALYSIS WITH APPLICATIONS IN MECHANICS, Perpignan, 2017, September 6-8, BU UVPD; Plenary lecture "Mixed variational problems with applications in Contact Mechanics".
5. ETAMM 2016- EMERGING TRENDS IN APPLIED MATHEMATICS AND MECHANICS, University of Perpignan, France, May 30-June 3, 2016, MS2 : Variational and Hemivariational Inequalities: Theory, Numerical Methods and Applications, "Variational approaches into the weak solvability of a class of frictional contact problems"
6. ICAMNM 2016-INTERNATIONAL CONFERENCE ON APPLIED MATHEMATICS AND NUMERICAL METHODS, University of Craiova, April 14-16, 2016, Craiova, Romania "On a class of mixed variational problems and some of their applications. A review of recent results"
7. " 27-th IFIP TC7 Conference 2015 on System Modelling and Optimization", SophiaTech Campus, Sophia Antipolis, France, June 29 - July 3, 2015. Mini-symposium: Modelling and Control in Contact Mechanics "On the Weak Solvability and the Optimal Control of a Frictional Contact Problem with Normal Compliance"
8. The 11th International Conference on Informatics in Control, Automation and Robotics (ICINCO-2014) "Nonlinear Feedback Control and Artificial Intelligence Computational Methods applied to a Dissipative Dynamic Contact Problem" (joint work with Daniela Danciu, Micu Sorin and Ionel Roventa, speaker Daniela Danciu)
9. The "3rd International Eurasian Conference on Mathematical Sciences and Applications ( IECMSA-2014)", Vienna University of Technology (TU Vienna), 25-28 August 2014. " Weak solutions via Lagrange multipliers for contact models with normal compliance"
10. The 2014 International Conference of Applied and Engineering Mathematics, Imperial College London, U.K., 2-4 July 2014 (ICAEM'14), into the frame of The World Congress on Engineering 2014 (WCE 2014) London. " A mixed variational formulation for a slip-dependent frictional contact model"

11. 21st Conference on Applied and Industrial Mathematics - CAIM 2013, 19-22 September 2013, Bucuresti "A variational method for solving a class of boundary value problems arising from Contact Mechanic"
12. Workshop for Young Researchers in Mathematics (3-rd edition) May 9-10, 2013, Ovidius University, Constanta. "A unilateral contact model and its weak solvability by a new variational approach. A review of recent results"
13. XI-ème Colloque Franco-Roumain de Mathématiques Appliquées, Université de Bucarest, 24-30 Août 2012 "Un problème viscoplastique de contact avec contraintes unilatérales" (joint work with Mircea Sofonea, speaker Mircea Sofonea)
14. 41-ème Congrès National d'Analyse Numérique, SuperBesse- Puy-de-Dôme, 21-25 mai 2012, Université Blaise Pascal, Clermont-Ferrand, France "On the solvability of an abstract variational system (joint work with Ionel Roventa, speaker Ionel Roventa)
15. Workshop for Young Researchers in Mathematics, 10-11 May 2012, Ovidius University, Constanta. "A quasistatic contact model leading to a history-dependent quasivariational inequality."
16. The Seventh Congress of Romanian Mathematicians, June 29 - July 5, 2011, Brasov, Romania. "Abstract variational problems and applications in contact mechanics"
17. *Weak solutions for nonlinear antiplane problems*: talk in the framework of the Potential Theory Seminar organised by the Institute of Mathematics "Simion Stoilow" of the Romanian Academy and the Faculty of Mathematics and Computer Science of University of Bucharest; January 25, 2011, 14:00 MIF - Hall 1.
18. 10-ème Colloque Franco-Roumain de Mathématiques Appliquées, Poitiers, France, 26-31 Août 2010. "Sur une classe d'inéquations quasivariationnelles en mécanique du contact" (joint work with Mircea Sofonea, speaker Mircea Sofonea)
19. 9<sup>th</sup> French-Romanian Conference on Applied Mathematics, Transilvania University, Brasov, Romania, 2008.
20. Workshop *Recent Advances in Applied Mathematics*, Technical University of Civil Engineering, Bucuresti, 2008.
21. International Conference *Trends and Challenges in Applied Mathematics*, Technical University of Civil Engineering, Bucharest, 2007, Romania.
22. 8<sup>th</sup> French-Romanian Conference on Applied Mathematics, University of Chambéry, France, 2006.
23. *Network on Nonlinear Approximation and Adaptivity: Breaking Complexity in Numerical Modelling and Data Representation*: Mid-term meeting, Pavia, Italy, 2004.
24. 7<sup>th</sup> French-Romanian Conference on Applied Mathematics, University of Craiova, Romania, 2004.

25. 6<sup>th</sup> French-Romanian Conference on Applied Mathematics, University of Perpignan, France, 2002.
26. International Conference on Nonlinear Operators, Differential Equations and Applications, Cluj, Romania, 2001.

## RESEARCH VISITS

- University of Perpignan (LAMPS): September, 2-9, 2017
- Technische Universität Munchen, Mathematik und Informatik Zentrum: 10 August-18 August 2014
- Technische Universität Munchen, Mathematik und Informatik Zentrum: 22 July- 02 August 2013, 26 August- 12 September 2013
- Technische Universität Munchen, Mathematik und Informatik Zentrum: July 2012
- University of Perpignan (LAMPS): June, 2012
- Technische Universität Munchen, Mathematik und Informatik Zentrum: April 2012
- University of Perpignan (LAMPS): September, 2011
- Technische Universität Munchen, Mathematik und Informatik Zentrum: August 2011
- University of Perpignan (MEPS): November, 2010
- Institute of Mathematics of the Academy of Sciences of the Czech Republic, Prague: July 2010
- Stuttgart University (IANS): July, September, 2009

## GRANTS/RESEARCH PROJECTS

- CONMECH 823731 H2020-MSCA-RISE-2018 (Marie Sklodowska-Curie Research and Innovation Staff Exchange) project coordinator Stanislaw Migorski, Jagiellonian University in Krakow, Poland;  
Project title: Nonsmooth Contact Dynamics  
node coordinator Andaluzia Matei, University of Craiova (01.01.2019-11.03.2021)

- French-Romanian research project (LEA Math Mode CNRS-IMAR) "Analyse variationnelle et numérique en Mécanique du Contact" proposed by Mircea Sofonea (responsible of the French side) and Andalužia Matei (responsible of the Romanian side) (17.11.2014-31.12.2015)
- Interdisciplinary project 2014 (10C / 27.01.2014). Director: Conf. Daniela Danciu "Sisteme cu parametri distribuiti: analiză, sinteză via funcționale Liapunov pentru comandă, aproximare numerică și implementare tip neurocomputing"
- GRANT CNCS-UEFISCDI PN-II-RU-TE-3-0223. Director Lect.Dr Andalužia-Cristina Matei  
*Strongly Nonlinear Problems in Contact Mechanics*
- GRANT CNCS-UEFISCDI PN-II-ID-PCE-2011-3-0257. Director Prof.Dr. Sorin Micu  
*Controllability, asymptotic behavior and numerical analysis for evolutionary processes*
- LEA MATH-MODE Fr-Ro (CNRS-IMAR): 2009, 2010, 2011. Responsible: Prof.Dr. Mircea Sofonea (FR) and Prof.Dr. Dan Tiba (RO).  
*Modélisation Mathématiques en Mécanique du Contact: Analyse, Optimisation et Approche Numérique des Modèles*  
Projet de recherche dans le cadre du programme Math Mode du Laboratoire Européen associé CNRS Franco-Roumain
- GRANT CNCSIS PN II 420: 2008, 2009, 2010, 2011. Director prof. Constantin P. Niculescu.  
*Probleme de analiza convexa, analiza numerica si control in studiul sistemelor fizice complexe*
- GRANT CNCSIS 589: 2007, 2008, 2009. Director Prof. Vicentiu Radulescu.  
*Analysis and Control of Nonlinear Differential Systems*
- GRANT CNCSIS 80: 2005, 2006. Director Prof. Constantin P. Niculescu.  
*Integration of the Romanian master program in the European network; promoting the inter-disciplinary research through the study of nonlinear analysis and evolution problems*
- EUROPEAN UNION RESEARCH PROGRAM coordinated in Italy; project reference HPRN-CT-2002-00286 ([http://cordis.europa.eu/project/rcn/67800\\_en.html](http://cordis.europa.eu/project/rcn/67800_en.html)). Local coordinator Prof. Barbara Wohlmuth (IANS, Stuttgart University- satellite of the Technische Universitaet Chemnitz).  
*Non-linear approximation and adaptivity: breaking complexity in numerical modelling and data representation.*
- GRANT CNCSIS 308: 2004, 2005. Director Prof. Vicentiu Radulescu.  
*Nelinearități și singularități în fizica matematică*

- PROGRAMME d' ACTIONS INTEGRÉE BRÂNCUȘI Fr-Ro: 2003, 2004. Directors Prof. Vicențiu Rădulescu (Ro), Prof.dr. Mircea Sofonea (Fr).

International bilateral program France-Roumania

*Nonlinear Analysis and Applications in Solid Mechanics*

### **Organizing an workshop/ a session in a congress**

- Coordinator of the Workshop *Applied Mathematics: Methods and Modeling*, (WAMMM 2017) Craiova, May 7-8, 2017, <http://math.ucv.ro/wammm2017/index.html>
- *Modèles mathématiques et numériques en mécanique des solides*  
co-organizers: P. Hild and M. Sofonea (<http://fmi.unibuc.ro/CFR2012/sessions.html>)  
XI-ème Colloque Franco-Roumain de Mathématiques Appliquées, Université de Bucarest, 24-30 Août 2012

### **Member of the organizing committee for an international conference**

- "8th Workshop on Control of Distributed Parameter Systems", Craiova, 1-5 July, 2013, in collaboration with Institute Elie Cartan (Nancy).  
<http://www.math.ucv.ro/wcdps/index.html>;  
<http://www.math.ucv.ro/wcdps/committees.html>

### **Member of the scientific committee for an international conference**

- INTERNATIONAL CONFERENCE ON APPLIED MATHEMATICS AND NUMERICAL METHODS (ICAMNM)-second edition, October 19-20, 2018, Craiova, Romania  
<http://cis01.central.ucv.ro/ICAMNM/?Committees>