

Selective publication list

a) Books

1. S. Marzavan, S. Roateși, I. Sprințu – *Linear algebra with engineering applications*, Military Technical Academy Press, Bucharest, 2015.
2. S. Roateși – *Finite Element Analysis for the Problem of Tunnel Excavation Successive Phases*, Chapter *Finite Element Analysis - New Trends and Developments/Book 2* (ISBN: 980-953-307-496-7), pp 301-332, InTech, Croatia, oct. 2012
3. S. Roateși, Silvia Marzavan – *Analytical and differential geometry – applications and problems*, Military Technical Academy Press, Bucharest, 2012.
4. S. Roateși, Silvia Marzavan – *Problems of linear algebra in engineering*, Military Technical Academy Press, Bucharest, 2011.
5. S. Roateși – *Numerical methods – theoretical elements and applications*, Military Technical Academy Press, Bucharest, 2010.
6. S. Roateși – *Analytical and differential geometry*, Military Technical Academy Press, Bucharest, 2009.
7. S. Roateși, M. Ariciuc – *Linear algebra and analytical geometry*, Matrix-Rom Press, Bucharest, 2008.
8. S. Roateși – *C Language programming*, Matrix-Rom Press, Buc., 2005.
9. S. Roateși – *Mathematical modeling and finite element problems in tunnel calculation*, Romanian Academy Press, Bucharest, 2005.

b) Publications

- 1.S. Roateși – *Analytical and Numerical Approach For Tunnel Face Advance In A Viscoplastic Rocks Mass*, Int J Rock Mech Min Sci, Elsevier, 70C, pp. 123-132, September 2014 (*ISI*), IF 2.268.
- 2.S. Roateși - *Finite Element Analysis of Effect of Lining on damage in viscoplastic rocks*, Computers and Geotechnics, Elsevier, Volume 49, pp. 1-6, 2013 (*ISI*) IF 2.358.
3. S. Roateși - *On the variational formulation of a chemically active shale constitutive model*, Proceedings of the Romanian Academy, *Series A, Volume 11, Number 2*, pp. 116–124, 2010 (*ISI*).
4. S. Roateși - *Analysis of the successive phases of a tunnel excavation with support mounting*, Proceedings of the Romanian Academy, *Series A, Volume 11, No. 1*, pp. 11–18, 2010 (*ISI*).
5. S. Roateși, *A mathematical model for excavation and support of a tunnel in viscoplastic rock mass*, Scientific Bulletin–Mathematical modeling in Civil Eng., No.1, pp.57-64, 2006.
6. S. Roateși, M. Ariciuc – *Study on depth dependency in tunnel calculation*, Scientific Bulletin, UTCB, 1, pp.16-30, 2005.
7. E. Detournay, L. Dormieux, E. Lemarchand, S. Roateși, D. Fourmaintraux - *Stability of a borehole drilled in a chemically active rock*, BIOT2002, Poromechanics II, Balkema Publ., pp.171-179, 2002.
8. Ph.A. Charlez, S. Roateși - *A fully analytical solution of the well-bore stability problem under undrained conditions using a linearized Cam-Clay model*, Oil&Gas Science and Technology-Rev.IFP, Paris, Vol.54, No.5, pp.551-563, 1999, **Reviewed in SCOPUS**. (*ISI*) IF 1.184.
9. S. Roateși, A.H.Chan - *Comparison of FE analysis and analytical solution for underground openings problems in viscoplastic rock mass*, Rev.Roum. Sci. Techn.- Mec.Appl., Vol. 43, No.2, pp.327-344, 1998.
10. A.H.Chan, S. Roateși - *Finite element approach in viscoplasticity for Cristescu saturated sand model*, Rev. Roum. Sci. Techn.-Mec.Appl., Vol. 42, No.5-6, pp. 451-465, 1997, **Reviewed in CSA Illumina**.
11. S. Roateși - *The face tunnel influence in the analysis of a circular tunnel with a time-dependent behaviour* - Rev.Roum.Sci.Tech. Mec.Appl., Vol. 41, no 3-4, pp. 247-263, 1996.
12. S. Roateși - *Griffith Type Failure for Rocks*, University of Bucharest Annals, pp.49-59, 1996, **Reviewed in Zbl. 0894.73119**.
13. O.Simionescu, S. Roateși - *Stress Concentration of the Interaction of Two Square Holes with Rounded Corners - A Comparative study* - ZAMM, ICIAM, Hamburg, Vol.5, pp.479-480,1995), **Reviewed in SCOPUS, Reviewed in Zbl. 0925.73080**, (*ISI*). IF 1.293.

c) Presentations in international events (with ISSN or ISBN)

1. I. Roateși, **S. Roateși** - Application of numerical modeling in dental implantology biomechanics, American Institute of Physics (AIP) Conference Proceedings VOL. 2116, 370008; <https://doi.org/10.1063/1.5114381>, **2019 (ISI)**.
2. I. Roateși, **S. Roateși** – *Numerical FEM Model in Dental Implant Prosthetics*, American Institute of Physics (AIP) Conference Proceedings 2017, VOL. 1978, UNSP 390008-1; <https://doi.org/10.1063/1.5043991>, **2018 (ISI)**.
3. **S. Roateși**, Amado Stefan, Dragos Cretoiu, Tudor Savopol, Sanda Cretoiu - *Semi-analytical Solution of Telopodes Elongation in the Case of Behavior Modeling of Living Cells of Telocytes Type*, American Institute of Physics (AIP) Conference Proceedings 2017, VOL. 1978, 390007-1; <https://doi.org/10.1063/1.5043991>, **2018 (ISI)**.
4. I. Roateși, **S. Roateși** - *Numerical FEM Modeling in Dental Implantology*, American Institute of Physics (AIP) Proceedings 2015, VOL. 1738, 350003; <http://doi.org/10.1063/1.4952126>, **2016 (ISI)**.
5. I. Roateși, **S. Roateși**, C. Rotaru, S. Crețoiu, D. Crețoiu - *Mathematical Model of Living Cells Behavior: Case of Telocytes*, American Institute of Physics (AIP) Proceedings 2015, VOL. 1738, 350002; <http://doi.org/10.1063/1.4952125>, **2016 (ISI)**.
6. C. Rotaru, **S. Roateși**, I. Cîrciu – *Aircraft Engine Mathematical Model – Linear System Approach*, American Institute of Physics (AIP) Proceedings VOL. 1738, 290012; <http://doi.org/10.1063/1.4952084>, **2016 (ISI)**.
7. I. Roateși, **S. Roateși**, C. Rotaru - *FEM Analysis of One Element Prosthesis on Dental Implant*, Proceedings of International Conference on e-Health and Bioengineering, EHB 2015, Iasi, IEEE XPLORE pp. 1-4. doi: 10.1109/EHB.2015.7391353, **2015 (ISI)**.
8. C. Rotaru, **S. Roateși**, R.I. Edu et all – *Human Pilot's Dinamic Response Characteritiscs*, Proceedings of International Conference on e-Health and Bioengineering, EHB 2015, Iasi, IEEE XPLORE EMB, **2015 (ISI)**.
9. **S. Roateși** - *Analytical Approach of the Tunnel Face Effect on the Rock-Support Interface in Viscoelastic Rock Mass*, American Institute of Physics (AIP) Proceedings, **1558**, 1354 (2013), <https://doi.org/10.1063/1.4825764>, pp. 1355-1358, Oct., 2013, **(ISI)**.
10. I. Sprințu, **S. Roateși** - *Experimental Validation Of New Mathematical Solutions For Orthotropic Plates With Clamped Edges*, American Institute of Physics (AIP) Proceedings, 1558, 1359 (2013); <https://doi.org/10.1063/1.4825765>, pp. 1359-1362, Oct., 2013, **(ISI)**.
11. **S. Roateși** - *Equations Of State In Numerical Blast Modeling*, The 19th International Scientific Conference Knowledge-based Organization, KBO 13-15.06.2013, Sibiu, 2013
12. **S. Roateși** – *Energetic Damage Criterion For Elasto-Viscoplastic Materials In Finite Element Problems*, Proceedings of the 21st International Workshop on Computational Mechanics of Materials, Limerick, Ireland, pp. 22-23, 2011.
13. **S. Roateși** – *Energetic damage criterion for elasto-viscoplastic materials in finite element problems*, The 16th International Scientific Conference Knowledge-based Organization 25-27.11.2010, Sibiu, 2010 **(ISI)**.
14. **S. Roateși** – *Variational formulation in chemoporoelasticity*, Proceedings of the the 20th International Workshop on Computational Mechanics of Materials, published in Computational Materials Science, Loughborough, UK, 2010.
15. **S. Roateși** – *Parametric study by finite element method for the tunnel progressive advancement and lining mounting*, Joint International Conferences MEQAPS, EG, MN, WSEAS Publications, Brașov, 2009 **(ISI)**.
16. **S. Roateși** – *Simulation of the excavation tridimensional problem in viscoplastic media through analytical solutions*, The XV-th National Symposium for Construction Equipment, SINUC 2009, Bucharest, ISSN - 1842-6352, 17-18 December 2009.
17. **S. Roateși** – *A semianalytical solution for a well drilled in a chemical active shale* – International Conference – Trends and challenges in applied mathematics, ICTCAM2007, pp.73-74, Bucharest, 20-23 June 2007.
18. **S. Roateși** – *Mathematical Modeling of Coupled chemical-mechanical interactions for shale*–The 6-th Congress of Romanian Mathematicians, Bucharest, 28.06-4.07 2007, pp.134-135.
19. **S. Roateși** – *Physico-chemical interactions in porous media* – The 8-th French-Romanian Colloquium of Applied Mathematics, Chambéry, 28 August-1 September 2006.

- 20. S. Roateși** – *The face influence in tunnel calculation for time dependent medium*, The X-th National Symposium for Construction Equipment, SINUC 2006, Bucharest, ISSN - 1842-6352, 14-15 December 2006.
- 21. S. Roateși, M. Ariciuc** – *Face influence in calculation of tunnels in viscoplastic rock mass*, The XI-th National Symposium for Construction Equipment, SINUC 2005, Bucharest, ISSN - 1842-6352, 15-16 December 2005.
- 22. S. Roateși** – *Numerical applications for models with mixed effects in porous media mechanics*, The IX-th National Symposium for Construction Equipment, SINUC2003, 11-12 December 2003.
- 23. S. Roateși** - *A numerical solution for a viscoplastic constitutive equation for rock salt* -Proc.of the 5th Conf. on mechanical behaviour of salt MECASALT5, Editors N.Cristescu,R.Hardy Jr.,O.Simionescu, Swets&Zeitlinger Publisher,Lisse,Holland, 2002.
- 24. T.Iftimie, S. Roateși** - *The numerical modeling of the shield tunneling method: calibration with in-situ measurements*, AFTES – Journee d’etudees Internationales de Chambéry,21-24 oct. pp.39-45, 1996.
- 25. S. Roateși, O.Simionescu**- *Numerical analysis of the evolution of a circular tunnel in a viscoplastic rock mass with inelastic lining*, Proc. ECCM99, Munchen,pp.262-263, 1999.
- 26. S. Roateși** - *A finite element model for a lined tunnel in a viscoplastic rock mass* 3rd EUROMECH Solid Mech.Conference, Stockholm, pp. 170-171, 18-22 August, 1998.
- 27. S. Roateși** - *A finite element model for underground openings in a viscoplastic rock salt*, 13th Nat. Congr. of Applied Mechanics, Gainesville, USA, July, 1998.
- 28. S. Roateși** - *Numerical Integration of a Viscoplastic Constitutive Equation for Geomaterials. Comparison with the Analytical Solution for step Creep* - The XVIIIth Conference of Solid Mechanics, Braşov, Romania, Bul. Vol. I, pp.31-38, 1994.