

## LISTA LUCRĂRILOR ȘI REALIZĂRILOR ȘTIINȚIFICE

### Cristian-Emil MOLDOVEANU

#### 1. TEZA DE ABILITARE:

**Moldoveanu C.E.**, *Contribuții la aerodinamica și dinamica zborului sistemelor aerospațiale pentru apărare și securitate*, teză de abilitare în domeniul *Inginerie aerospațială*, susținută în Academia Tehnică Militară “Ferdinand I”, la data de 21 Octombrie 2021, în fața comisiei de abilitare formată din prof.univ.dr.ing. GRIGORIE Teodor Lucian (Academia Tehnică Militară “Ferdinand I”), prof.wat.dr.hab.ing. KACHEL Stanislaw (Universitatea Militară de Tehnologie, Varșovia, Polonia) și conf.univ.dr.ing. LARTIGUE Berangere (Universitatea “Paul Sabatier” din Toulouse, Franța);

#### 2. TEZA DE DOCTORAT:

**Moldoveanu C.E.**, *Simulation des grandes échelles de tourbillons longitudinaux soumis a une turbulence extérieure*, teză de doctorat în co-tutelă franco-română, Institutul Național Politehnic din Toulouse/Academia Tehnică Militară, conducători științifici prof. univ. Henri-Claude BOISSON și gl. mr. (r) prof. univ. dr. ing. Florentin MORARU, 18 Decembrie 2007, Toulouse, Franța;

#### 3. CĂRȚI ȘI MANUALE PUBLICATE

##### 3.1. Cărți și capitole în cărți de specialitate

- 1 **Moldoveanu C.E.**, *Modélisation et simulation des écoulements turbulents – Simulation des grandes échelles des tourbillons de sillage*, Edition Universitaires Européennes, Saarbrücken, Germania, 222 pag., ISBN: 978-613-1-52198-0, 2010;
- 2 **Moldoveanu C.E.**, *Modelarea și simularea numerică a siajului turbulent al aeronavelor*, Edition Editura AGIR, București, 2017, 187 pag., ISBN: 978-973-720-700-5, editură națională;
- 3 Bucur F., **Moldoveanu C.E.**, Rotariu A.N., *Modelarea și simularea fenomenelor aerodinamice cu aplicații în domeniul sistemelor de armament*, Editura Academiei Tehnice Militare Ferdinand I, ISBN 978-973-640-324-8, 140 pag., 2020 ;
- 4 Roșca A., Popa I., Bunea M., Șomoiaș P., **Moldoveanu C.E.**, *Calculul și Construcția Armamentului de Artilerie. Acțiunea Tragerii asupra Gurilor de Foc*, Editura Academiei Tehnice Militare, București, 185 pag., ISBN: 973-8290-55-4, 2002.

##### 3.2. Manuale didactice și Îndrumare de laborator

- 1 **Moldoveanu C.E.**, Bucur F., Șomoiaș P., *Aerodinamica proiectilelor, bombelor și rachetelor*, Editura Academiei Tehnice Militare Ferdinand I, ISBN 978-973-640-325-5, 180 pag., 2020;
- 2 Enache C., **Moldoveanu C.E.**, *Muniții și Focoase de Aviație*, București, Editura Academiei Tehnice Militare, ISBN 978-973-640-250-0, 280 pag., 2016;
- 3 **Moldoveanu C.E.**, Enache C., *Muniții și focoase de aviație. Îndrumar de laborator*, București, Editura Academiei Tehnice Militare “Ferdinand I”, ISBN 978-973-640-294-42018, 92 pag., 2019;
- 4 Șomoiaș P., **Moldoveanu C.E.**, Bucur F., Mandache A., *Calculul și construcția armamentului de artilerie. Îndrumar de laborator pentru proiectarea legăturilor elastice*, Editura Academiei Tehnice Militare Ferdinand I, ISBN 978-973-640-318-7, 84 pag., 2020;

#### 4. ARTICOLE ȘTIINȚIFICE

##### a) Articole publicate în reviste indexate ISI Web of Science

- 1 Rotariu, A., Trană E., Matache L., Cîrmaci M., Sandu S., **Moldoveanu C.E.**, Bucur F., *Experimental Study on the Dynamic Response of Polyurethane/fly Ash Ceramic Foam*, Materiale Plastice (Mater. Plast.), Volume 58, Issue 1, 106-112, ISSN Print 0025-5289, ISSN Online 2668-8220, 2021 (**Web of Knowledge, FI 0.593, WOS:000637398100010, BDI: SCOPUS**); DOI: <https://doi.org/10.37358/Mat.Plast.1964>
- 2 Trana E., Rotariu, A.N., Rotariu T., Pulpea, B.G. **Moldoveanu C.E.**, Bucur F., Matache L.C., Gozin M., *Experimental Study on Aluminum Foils Use in Blast Enhancement Application*, Proceedings Of The Romanian Academy Series A-Mathematics Physics Technical Sciences Information Science, Volum 20, Issue 3, iulie-septembrie, pag. 275-282, ISSN 1454-9069, 2019 (**Web of Knowledge, FI 1.523, WOS:000485880200008, BDI: SCOPUS**), <https://acad.ro/sectii2002/proceedings/doc2019-3/08-Trana.pdf>

- 3 Şomoiaş P., **Moldoveanu C.E.**, *Numerical Research on the Stability of Launching Devices During Firing*, Defence Technology Elsevier Journal, Volum 9, Issue 4, ISSN 2214-9147, pag. 242-248, **2013** (**Web of Knowledge, FI 3.172, WOS:000217852200009, BDI: SCOPUS**), DOI: <https://doi.org/10.1016/j.dt.2013.12.005>

**b) Articole publicate în reviste indexate SCOPUS (altele decât cele ISI)**

- 1 Goga D.A., Țigănescu T.V., Pulpea B., **Moldoveanu C.E.**, Rotaru C., *A Quantitative Method of Comparative Assessment of Primers Ignition Performances*, Journal Advances in Military Technology, Vol. 12, No. 2 (2017), pp. 217-228, Brno, ISSN 1802-2308, DOI 10.3849/aimt.01185 (**BDI: SCOPUS, DOAJ**);
- 2 Nuțu V., **Moldoveanu C.E.**, Şomoiaş P., *A method and an algorithm for obtaining the Stable Oscillatory Regimes Parameters of the Nonlinear Systems, with two time constants and Relay with Delay and Hysteresis*, WSEAS Transactions on Systems and Control, Issue 8, Volume 4, **august 2009**, pp. 413-422, ISSN 1991-8763 (**BDI: SCOPUS, Engineering Village**);

**c) Articole publicate în reviste indexate BDI (altele decât cele ISI și SCOPUS)**

- 1 **Moldoveanu C.E.**, Du Parc M., Somoiaş P., *Aspects Regarding the Unguided Rocket Effectiveness*, Review of the Air Force Academy, Braşov, No. 1/2017, ISSN 2069-4733 (**BDI: Index Copernicus, EBSCO, PROQUEST**);
- 2 **Moldoveanu C.E.**, Buono S., Şomoiaş P., *Study of Unguided Rocket Effectiveness*, MTA Review, Volum XXVI, nr. 1/ **March 2016**, pag. 71-80, ISSN 1843-3391 (**BDI: Index Copernicus, EBSCO**);
- 3 Sava A.C., **Moldoveanu C.E.**, Şomoiaş P., Nistoran D.G., *Study of the Effect of 7.62 mm Caliber Ammunition, on Concrete. Comparative Analysis between Eastern and Western Types Ammunition*, MTA Review, Bucharest, Volum XXVI, nr. 1, pag., 13-18, **March 2016**, ISSN 1843-3391 (**BDI Index Copernicus, EBSCO**).
- 4 **Moldoveanu C.E.**, Şomoiaş P., Hemelaar O., Aubert M., *Particularities of the Interaction Between the Aircraft Wake Vortices and the Atmospheric Boundary Layer*, Review of the Air Force Academy, Braşov, No. 3/2015, ISSN 2069-4733 (**BDI: Index Copernicus, EBSCO, PROQUEST**);
- 5 Nuțu V., **Moldoveanu C.E.**, *Study on Percussive Operation of a Plan Mechanism with Perpendicular Displacements*, MTA Review, Bucharest, Volum XXIV, nr. 4, **December 2014**, ISSN 1843-3391 (**BDI: Index Copernicus, EBSCO**).
- 6 **Moldoveanu C.E.**, Giovannini A., Boisson H.C., Şomoiaş P., *Simulation of Wake Vortex Aircraft in Ground Effect*, INCAS Buletin, Volum 3, nr. 1/2011, pp. 55-61, ISSN 2066-8201 (**BDI: SCIPPIO, Index Copernicus, ProQuest, DUAJ, CNCSIS B**);
- 7 Şomoiaş P., Moraru F., Safta D., **Moldoveanu C.E.**, *A Mathematical Model for the Motion of a Rocket-Launching Device System on a Heavy Vehicle*, WSEAS Transactions on Applied and Theoretical Mechanics, Issue 4, Volume 2, pp. 95-101, ISSN 1991-8747 **august 2007**, (**BDI: Engineering Village**);
- 8 Şomoiaş P., Safta D., Moraru F., **Moldoveanu C.E.**, *A Scheduling Algorithm for the Motion of a Rocket-Launching Device System on a Heavy Vehicle*, WSEAS Transactions on Applied and Theoretical Mechanics, Issue 4, Volume 2, pp. 102-107, ISSN 1991-8747, **august 2007**, (**BDI: Engineering Village**);

**d) Articole publicate în volumele unor conferințe indexate ISI Web of Science**

- 1 **Moldoveanu C.E.**, Edu I.R., Rotariu T., Andrusac G. *The Impact of Erasmus Mobility on Military Technical Higher Education*, Proceedings of the 9th International Technology, Education and Development Conference, INTED 2015, pp. 4233-4238, ISSN 2340-1079, ISBN: 978-84-606-5763-7, Madrid, Spain, **2-4 March 2015** (**Web of Knowledge Proceedings, WOS:000398586304036**);
- 2 Sava A.C., Nistoran D., **Moldoveanu C.E.**, Piticari L., *The analysis of the vibratory movement of the gun barrel and its influence on the firing accuracy*, Proceedings of the 21st International Conference The Knowledge Based Organization, Sibiu, June, **2015**, DOI:10.1515/kbo-2015-0150, ISSN: 1843-6722, pag. 883-887, (**Web of Knowledge, WOS:000379493200150**);
- 3 **Moldoveanu C.E.**, Şomoiaş P., Tudor V.C., Vedinaş I., *Research Concerning the Oscillations of the Weapons Systems Barrels*, Proceedings of the 16th International Conference – The Knowledge-Based Organization, Land Forces Academy, pag. 83-87, ISSN 1843-6722, 25-27 November **2010** (**Web of Knowledge, WOS:000297596200013**);

- 4 Șomoiaș P., **Moldoveanu C.E.**, *The Numerical Simulation for the Determining of the Oscillations which Appear in Launching Site During Firing*, Proceedings of the 16th International Conference – The Knowledge-Based Organization, Land Forces Academy, 25-27 November 2010, pag. 136-142, ISSN 1843-6722 (**Web of Knowledge, WOS:000297596200022**);
- 5 Răducanu D., Nedelcu I., Safta D., **Moldoveanu C.E.**, Șomoiaș P., *Particularity Concerning Evaluation of Unguided Rocket Trajectories Deviation under the Disturbance Factors Action*, Lecture Notes in Engineering and Computer Science, WCE2009 Proceedings of The World Congress on Engineering 2009, Volume II, pag. 1458-1462, ISBN 978-988-17012-5-1, 2009 (**Web of Knowledge, WOS:000271615700271**);
- 6 Șomoiaș P., **Moldoveanu C.E.**, *Air and Ballistic Missile Defense Systems*, Proceedings of the 15th International Scientific Conference - Knowledge Based Organization, Land Forces Academy, Sibiu, Section 5 – Applied Technical Sciences and Advanced Military Technologies, pag. 298-300, ISSN 1843-6722, 26-28 November 2009 (**Web of Knowledge, WOS:000277288700059**);
- 7 Nuțu V., **Moldoveanu C.E.**, Șomoiaș P., *Some Aspects of the Oscillatory Regime of Nonlinear Systems with Relay and Delay Time*, Proceedings of the 11th WSEAS International Conference on Automatic Control, Modelling and Simulation (ACMOS'09), Istanbul, Turcia, pag. 395-400, ISSN 1790-5117, ISBN 978-960-474-082-6, 30 mai - 01 iunie 2009, (**Web of Knowledge, WOS: 000271276800059**);
- 8 Nuțu V., **Moldoveanu C.E.**, Șomoiaș P., *A Method for Calculus of Oscillatory Regime Parameters for Systems which Include a Nonlinear Parts Inside of Controlled Plant*, Proceedings of the 11th WSEAS International Conference on Automatic Control, Modelling and Simulation (ACMOS'09), Istanbul, Turcia, pag.401-406, ISSN 1790-5117, ISBN 978-960-474-082-6, 30 mai-01 iunie 2009 (**Web of Knowledge, WOS:000271276800060**).
- 9 **Moldoveanu C.E.**, Safta D., Șomoiaș P., *Analyze of the Counter-Rotating Vortices Pair Stability under the External Turbulence Influence*, Lecture Notes in Engineering and Computer Science, WCE2008 Proceedings of The World Congress on Engineering 2008, The 2008 International Conference of Mechanical Engineering, Londra, United Kingdom, Volume II, pag. 1463-1467, ISBN 978-988-17012-3-7, 2-4 iulie 2008, (**Web of Knowledge, WOS:000259580600272**);
- 10 Șomoiaș P., Safta D., **Moldoveanu C.E.**, *Particularity of the Rocket Movement upon the Launcher under the Disturbance Factors Action which Appear During the Firing*, Lecture Notes in Engineering and Computer Science, WCE2008 Proceedings of The World Congress on Engineering 2008, The 2008 International Conference of Mechanical Engineering, Londra, UK, Volume II, pag. 1396-1401, ISBN 978-988-17012-3-7, 2-4 iulie 2008, (**Web of Knowledge, WOS:000259580600260**);
- 11 Șomoiaș P., **Moldoveanu C.E.**, Surdu G., *Studies concerning the evaluation of trajectories deviations caused by the perturbations made when the rocket leaves the rocket launcher system*, Proceedings of the International Conference on Military Technologies 2007, Brno, Czech Republic, pag. 146 -154, ISBN 978-80-7231-238-2, 2007 (**Web of Knowledge, WOS:000263292800021**);

**e) Articole publicate în volumele unor conferințe indexate BDI (altele decât cele ISI)**

- 1 **Moldoveanu C.E.**, Giovannini A., Boisson H.C., *Turbulence receptivity of longitudinal vortex-dominated flows*, Lecture Notes in Computational Science and Engineering, Vol. 69, Springer Verlag, Berlin, pp. 227 – 236 (10 pag.), ISBN: 978-3-642-00604-3, 2009, DOI: [https://doi.org/10.1007/978-3-642-00605-0\\_18](https://doi.org/10.1007/978-3-642-00605-0_18) 3391 (BDI: **SpringerLink**);
- 2 Zvîncu N.D., **Moldoveanu C.E.**, Mandache-Dodoiu A.D., Dîrloman F., Vedinaș I., *Research on Small Caliber Weapons Firing Ranges Security Enhancement Considering the Projectile-Obstacle Impact*, International Conference Modern Technologies in Industrial Engineering, June 23rd-26<sup>th</sup>, IOP Publishing Ltd, IOP Conference Series Materials Science and Engineering, Vol. 1182, ISSN: 2286-4369, 2021, DOI:10.1088/1757-899X/1182/1/012086 (**BDI: EBSCO**)
- 3 Surdu G., **Moldoveanu C.E.**, Șomoiaș P., *PROTECH “In House” Software an Alternative for Projectile’s Drag Coefficient Evaluation in Case of Small Tolerances of its Geometrical Dimensions*, Proceedings of the 18th International Conference „Scientific Research and Education in the Air Force”, AFASES 2016, „Henri Coanda” Air Force Academy, Vol. I, pp. 67-76, ISSN, ISSN-L: 2247-3173, DOI: 10.19062/2247-3173.2016.18.1.9, Brașov , 26-28 May 2016, (**BDI:EBSCO, Index Copernicus**);
- 4 **Moldoveanu C.E.**, Șomoiaș P., Ferrier P., Daude H., *Mathematical Models used to Study the Aircraft Wake Vortices*, International Conference of Scientific Papers „Scientific Research and Education in the Air Force”, AFASES 2013, Brașov, 23-25 May 2013, (**BDI:EBSCO, Index Copernicus**).