

VIRGIL-FLORIN DUMA

Curriculum Vitae

<http://www.researcherid.com/rid/B-3031-2010>



PREGĂTIRE PROFESIONALĂ

- **Doctor în Științe Inginerești**, calificativul "cum laudae", Universitatea "Politehnica" din Timisoara. Titlul tezei: "*Contribuții la analiza și sinteza sistemelor de scanare*", conducător științific Prof. Dr. ing. Dan Perju, **1994-2001**;
- **Inginer diplomat**, calificativul "summa cum laude," Universitatea "Politehnica" din Timisoara, media generală 9,89, cu nota 10 la lucrarea de diplomă: "*Colorimetru tricromatic cu sinteză mixtă*"; conducător științific Prof. Dr. fiz. Ioan Mihalca; șef de promoție (din aprox. 140 studenți), **1986-1991**;
- Serviciul militar: sept. **1985** – iun. **1986**;
- Liceul de matematică-fizică "Moise Nicoară" Arad, medie bacalaureat 9,66 (prima medie pe liceu), **1981-1985**.

DETALII PERSONALE

Născut: 4 iulie 1967, Arad, jud. Arad;
Căsătorit din 1999; doi copii (n. 2000 și 2002).

LIMBI STRĂINE CUNOSCUTE (scris, citit, vorbit)

- **Engleză**: fluent; punctaj 1994 TOEFL Test **627** (din 640 posibile);
- **Franceză**: foarte bine.

PREDARE & CERCETARE (20,5 ani experiență): Aparate și sisteme de măsurare; Optomecatronică și sisteme optice; Mecanisme și teoria mașinilor; Ingineria calității.

POZIȚII OCUPATE

- **Visiting Senior Research Fellow** și membru al Elliot College, 1 Iulie 2009 - Prezent, School of Physical Sciences (Applied Optics Group), *University of Kent at Canterbury*, Host: Prof. Adrian Gh. Podoleanu (UK);
- **Consilier ministerial**, din Martie 2012;
- **Profesor invitat (Senior Fulbright Research Fellow)**, Sept. 2009-Iunie 2010, The Institute of Optics, *University of Rochester*, N.Y. (USA); Host: Professor Jannick P. Rolland;
- **Profesor**, 2006-Prezent, Dept. of Product Design & AAMR, Facultatea de Inginerie, Univ. "Aurel Vlaicu" din Arad, Romania;
- **Conferențiar**, **2002 – prezent**, Catedra "Design de Produs & AAMR", Facultatea de Inginerie, Univ. "Aurel Vlaicu" din Arad;
- **Șef de lucrări**, **2001-2002**, Catedra "Discipline Tehnice Generale", Facultatea de Inginerie, Univ. "Aurel Vlaicu" din Arad;
- **Șef de lucrări**, **1997-2001**, Catedra de Organe de Mașini și Mecanisme, Facultatea de Mecanică, Univ. "Politehnica" din Timișoara;
- **Asistent**, **1994-1997**, Catedra de Organe de Mașini și Mecanisme, Facultatea de Mecanică, Univ. "Politehnica" din Timișoara;
- **Preparator**, **1991-1994**, Catedra de Organe de Mașini și Mecanisme, Facultatea de Mecanică, Univ. "Politehnica" din Timișoara.

ALTE POZIȚII

- **2008-2011, Secretar Științific**, Facultatea de Inginerie, Univ. "Aurel Vlaicu" Arad;
- Since **2008, Șef și fondator** al 3OM Research Group (in Opto-Mechatronics, Optical Metrology and Optical Materials), <http://www.3omgroup.appspot.com/>;
- Din **2006, Vice-președinte EUROP-RO** (Axa Sud-Vest, Roboți Industriali), parte din European Robotics Platform **EUROP**; reprezentant al Univ. Aurel Vlaicu in EUROP-RO;
- Din **2005, Editor Sef (și fondator)**, *Scientific and Technical Bulletin of the Aurel Vlaicu University, Series: Mechanical Engineering*;
- **2004-2006, Secretar Științific**, Dept. Design de Produs, Univ. Aurel Vlaicu;

LUCRĂRI ȘTIINȚIFICE (*h-index*: 4) <http://www.researcherid.com/rid/B-3031-2010>

129 lucrări publicate sau/și prezentate (51 ca unic autor, 40 ca prim, 38 ca și co-autor):

6 în reviste ISI cu factor de impact;

51 în alte reviste cu peer-review;

23 în proceedings indexate ISI sau BDI;

49 în proceedings-urile altor conferințe.

5 cereri de brevet național.

CĂRȚI PUBLICATE

4 capitole în cărți editate în edituri internaționale (Springer);

2 cursuri universitare (co-autor);

3 cărți științifice/monografii (unic author);

4 îndrumare de laborator (co-autor);

4 cărți ca și editor (2 îndrumare de laborator, 4 Proceedings);

CONFERINȚE INVITATE

- **Duma V.F.**, Optical Scanners in Medical Imaging. An Optomechanical Perspective (Seminar Invitat), *City University of New York (CUNY)*, New York (N.Y., USA), April 15, **2010**;
- **Duma V.F.**, Optical Engineering: Scanners, Choppers, Lenses, and Much More. A mathematical approach (3 Prezentări Invitate, Fulbright Occasional Lecturer Program), *Ana G. Mendez University System (AGMUS): Universidad Metropolitana, Universidad del Este, and Universidad Turabo*, San Juan (Puerto Rico, USA), March 19, **2010**;
- **Duma V.F.**, Curs Invitat (pentru Scoala Doctorală), *Institute of Optics, Univ. of Rochester* (NY, USA): Optical scanners (Mar. 03, **2010**);
- **Duma V.F.**, Prezentări Invitate (Tutoriale), *Hopkins Center for Optical Metrology, Inst. of Optics, Univ. of Rochester*, Rochester (NY, USA): 1) Applications and types of scanners (Nov. 03, **2009**); 2) Scanners – fundamentals (Nov. 17, **2009**); 3) Constructive characteristics of scanners (Dec. 01, **2009**); 4) Perspectives of optical scanning in OCT (Jan. 20, **2010**);
- **Duma V.F.**, Mathematical functions of a 2-D scanner with oscillating elements, *9th Conference on Dynamic Systems Theory and Applications*, Łódź (Poland), Dec. 17-20, **2007** (Lucrare Invitată); publicată ca un capitol în Springer; http://dx.doi.org/10.1007/978-1-4020-8778-3_22;
- **Duma V.F.**, Kaposta I., Tusz F., Achievement of the South-West Axis in Industrial Robots, Arad zone, of the EUROP-RO Technology Platform, *2nd EUROP-RO Symposium*, București, 26 Apr. **2007**, CD-ROM (Plenary Presentation), <http://www.europ-ro.ro/v1/ro/documente/58>;
- **Duma V.F.**, Contributions on the Design of the Optical Systems (Laser Scanning Devices) (Prezentare Invitată), Dept. of Physics, *Jacobs University of Bremen* (Germany), Oct. **2004**;

BURSE (SCHOLARSHIPS & FELLOWSHIPS)

- **Fulbright Senior Research Fellowship**, acordată prin concurs de către Departamentul de Stat al SUA, la Institute of Optics (#1 Institut în Optică în SUA), *Univ. of Rochester*, N.Y., USA; Host: Prof. Jannick P. Rolland (Brian J. Thomson Chair in Optical Engineering), Sept. **2009**-Iun. **2010**;
- **Bursă BEST** (Board of European Students of Technology) pentru Școala de Vară la *Eindhoven Univ. of Technology*, The Netherlands: Energy in Its Various Aspects; finalizată cu proiectul (în echipă): Nuclear Plant – Design and Ecological Aspects, July **1991**;
- **Bursă republican de merit**, din partea statului Român (**1990-1991**).

PREMII

- **Gradație de merit**, acordată pentru 3 ani, respectiv pentru 5 ani, prin competiție, de către Univ. "Aurel Vlaicu" din Arad, **2008-2011**, respectiv **2012-2017**;
- **Salariul de merit** (acordat anual, prin competiție) pe **2004, 2005, 2006**, de către Univ. "Aurel Vlaicu" din Arad;
- **Premiu CNCS**, cod PN-II-RU-PRECISI-2011-3-1257/**2011**, pentru: "Experimental investigations of the scanning functions of galvanometer-based scanners with applications in OCT," *Applied Optics* 50(29), 5735-5749, 2011 http://www.uefiscdi.gov.ro/userfiles/file/PREMIERE_ARTICOLE/articole%202011/evaluare/lista%207%20noiembrie%20rezultate%20buna.pdf (500€);
- **Premiu CNCS**, cod 1390/**2010**, pentru: "Radiometric versus geometric, linear, and non-linear vignetting coefficient," *Applied Optics* 48(32), 6355-6364, 2009, http://www.cnscis.ro/userfiles/file/PREMIERE_ARTICOLE/REST_REZULTATE_CUMULATE_ETAPA_II.pdf (500€);
- **Premiu CNCS**, cod 1391/**2010**, pentru: "Neutral density filters with Risley prisms: analysis and design," *Applied Optics* 48(14), 2678-2685, 2009 http://www.cnscis.ro/userfiles/file/PREMIERE_ARTICOLE/ARTICOLE%202009/REZULTATE_CUMULATE_ETAPA_II%281%29.pdf (250€);
- **Premiu CNCS**, cod 87, May **2008**, pentru: "Theoretical approach on optical choppers for top-hat light beam distributions," *J. of Optics A: Pure and Applied Optics* **10**(6), 064008, 2008, http://www.cnscis.ro/PNCIDI%20II/Resursa%20umana/Premiere/Mai08/REZULTATE_PREMIER_E_MAI%202008.pdf (1000€);
- **Olimpiadele naționale studențești "Traian Lalescu": 1987** (anul I) *naționale*: premiul III fizică; *locale (centrul universitar Timișoara)*: premiul I fizică, premiul special engleză; premiul special matematică la sesiunea de comunicări științifice; **1988** (anul II) *naționale*: **premiul special matematică, premiul I fizică**; *locale*: premiul I matematică, premiul I fizică; **1989** (anul III) *naționale*: premiul special mecanica fluidelor; *locale*: premiul I mecanica fluidelor, premiul I electrotehnică. Liceu: premiul II olimpiada de fizică, faza județeană Arad, **1982**.

GRANTURI DE CERCETARE

1. **Consultant/Expert** (Coordonator al Domeniului Inginerie Mecanică și Mecatronică al UAVArad), **POSDRU /5/1.5/S/2** (EU funding)- Proiect strategic: *Doctoratul în Școli de Excelență, 2009-2011*;
2. **Director/Principal Investigator (PI), Grant de cercetare Fulbright Senior 474/1** Iul. 2009, în Optical Engineering, acordat prin competiție de către Departamentul de Stat al SUA: *Scanning in Swept Source Optical Coherence Tomography (OCT)*, at the Inst. of Optics, Univ. of Rochester, N.Y. (USA); Host: Prof. J. P. Rolland, Sept. **2009-June 2010** (\$26450);
3. **Researcher, NYSTAR** (New York Science and Technology Association for Research) Award 054048-002, director Prof. J. P. Rolland, Univ. of Rochester, N.Y. (USA), **2010** (suport de \$6300);
4. **Consultant** (Expert în Educație), **POSDRU 2/1.2/S/3** (EU Funding)- Proiect strategic, cod 2684: *Quality and Leadership for Romanian High Education System (QLHE)* (www.edu2025.ro), **2009-2011**;
5. **PI, Grant IDEI**, cod CNCS 1896/2008 (contract 631/2009): *Analiza și sinteza unor sisteme de scanare poligonale și galvanometrice, uni- și bi-dimensionale, 2009-2011* (150000€);
6. **Consultant** (Expert în Mecatronică și Robotică), **POSDRU 2/1.2/S/2** (EU Funding): *Dezvoltarea unui sistem operational al calificărilor profesionale în România (DOCIS), 2009-2011*;
7. **Co-coordinator, Erasmus Program, RWTH Aachen (IGM) - Univ. Aurel Vlaicu Arad, 2007-2010**;
8. **Cercetător, Grant PNCIDI II 41-084: Utilizarea unor markeri genetici pentru stabilirea terapilor optime pentru cancerul laringeal și orofaringeal**, Univ. București, **2007-2010** (600000€);
9. **Consultant** (Expert), **CARE** (Coordinated Action for Robotics in Europe), **FP 6** Program - European Commission, EU (participare la CARE Consensus Meetings: Stuttgart, May 2008; Pisa, Oct. **2008**, pentru elaborarea SRA 2008-2020 – Agenda strategică pentru cercetare în Robotică în Europa);
10. **Cercetător, Grant B.E.N.A.-COSMOTE 1428/2007, Remote, computer assisted command and optimize of the use of a solar installation for greenhouses and small consumers, 2007** (750€);

11. **Cercetător, Grant CEEEX** No. 126/01.08.06: *Platforma Technologică EUROP_RO* (Romanian branch of the European Robotics Platform), Univ. Politehnica București, **2006–2008** (60000€);
12. **PI, 3 Contracte** de cercetare cu firme, prin Univ. Aurel Vlaicu Arad, **2004–2005** (2000€);
13. **PI, Grant AT**, cod CNCISIS 385: “*Dezvoltarea unor noi echipamente de scanare*”, **2003–2004** (3500€);
14. **Cercetător, Leonardo da Vinci Program** of the European Union, Timkars Project, for conceiving the courses in Precision Mechanics & Optics (simultaneously published in Germany and in Romania); co-author of the book: *Measuring and Control Apparatuses. Metrology*, **2000 – 2001** (225000€);
15. **Cercetător, Program Ro-4096**, cu Banca Mondială, și **Grant D(occtoral)**, cod CNCISIS 57: *Metode și mijloace pentru îmbunătățirea performanțelor echipamentelor de mecanică fină și pentru controlul calității*, director Prof. Dan Perju, Univ. Politehnica Timisoara, **1998 – 2002** (\$30000).

GRANTURI PENTRU PARTICIPARE LA CONFERINȚE

16. **PI**, Suport din partea FAST (Fulbright Academy of Science and Technology, SUA) și a Academiei Ungare de Științe, pentru a participa la Word Science Forum (<http://www.sciforum.hu/>), ca reprezentant al României în delegația Fulbright Alumni 30+, Budapesta, Noi. **2011** (~1500€);
17. **PI, Fulbright Occasional Lecturer Program** (OLP) Grant – din partea Departamentului de Stat al SUA, pentru a conferența în New York (N.Y., SUA), Apr. **2010** (\$250);
18. **PI, Fulbright Conference** Grant – din partea Departamentului de Stat al SUA, pentru a participa la Conferința “Linking Campus to Community” în Washington D.C. (WA, USA), Apr. **2010** (\$1000);
19. **PI, Fulbright Occasional Lecturer Program** (OLP) Grant – din partea Departamentului de Stat al SUA, pentru a conferența în San Juan (Puerto Rico, USA), Mar. **2010** (\$750);
20. **PI**, Suport din partea **University of Rochester** (NY, USA), pentru a participa la SPIE Photonics West Congress, Ian. **2010**, San Francisco (USA) [ISI] (\$1300);
21. **PI**, Ratiu Family Charitable Foundation (UK) Grant, pentru a participa la SPIE 1st Canterbury Workshop on Adaptive Optics and OCT, Sept. **2008**, Kent (UK) [ISI] (335£);
22. **PI, MC CNCISIS** Grant cod 237/2007, pentru a participa la DSTA Symposium, Lodz (Poland) (800€) http://www.cncsis.ro/PNCIDI%20II/Resursa%20umana/MC/Noiembrie/REZULTATE_FINALE_Tip_M_C_Noiembrie_2007.html;
23. **PI, MC CNCISIS** Grant cod 140/2007, pentru a participa la DAAAM Symposium, Zadar (Croatia) [ISI] (800€) http://www.cncsis.ro/PNCIDI%20II/Resursa%20umana/MC/REZULTATE_FINALE_Tip_MC.html;
24. **PI**, suport **IEEE** (Conference fee waiver) & **FEDROM** (FEDeration of ROManians in Spain) pentru a participa la IEEE/LEOS’ ODIMAP V (2 papers), Oct. **2006**, Madrid (Spain) (total: 900€).

AFILIERI PROFESIONALE

- **SPIE – Senior Member** - din 2011 (International Society for Optical Engineering), membru din 2005;
- **FAST – Life Member** (Fulbright Academy of Science and Technology) – din 2011;
- **OSA** (Optical Society of America) – din 2007;
- **IFTtoMM** (International Federation for the Theory of Mechanisms and Machines) – din 1998;
- **IAENG** (International Association of Engineers), London, UK – din 2006;
- **Platforma Tehnologică Europeană Photonics21** - din 2006;
- **EUROP-RO**, parte a **Platformei Tehnologice Europene de Robotică EUROP** – reprezentant al Univ. Aurel Vlaicu Arad în Platformă, vice-președinte al EUROP-RO, din 2006;
- **SRR** (Romanian Robotics Society) - din 2008;

EVALUATOR ȘI COMITETE DE ORGANIZARE

- Din **2007**: **Reviewer** *Optics Express*, *Optics Letters* (IF>3), *J Opt. Soc. Am. A* (IF≈2), and *Applied Optics* (IF>1.5), Journals of OSA (Optical Society of America) ~7 reviews/year; www.osa.org;
- Din **2010**: **Reviewer** *Acta Mechanica Sinica*, Journal of Springer; www.springer.com;
- Din **2011**: **Reviewer** *Advances in Optical Technologies*, <http://www.hindawi.com/journals/aot/> ;
- Din **2010**: **Reviewer** of Fulbright Grants of the US Department of State; 3 Grant proposals evaluated (Dec. 2010, April, Nov. 2011);

- Din **2008: Reviewer** al Granturilor cu finanțare Europeană (POS); propuneri evaluate: 8 in Mai și 8 in Sept. 2009; 6 in Noi. 2010; 9 in Ian. 2011;
- Din **2007: Reviewer** al Granturilor cu finanțare națională (PN II); propuneri evaluate: 30 in Iun.-Iul. 2007, 13 in Mar. 2008, 4 in Mai 2010, 8 in Sept.-Noi. 2011;
- **Membru al Comitetului Științific**, Conference on Dynamic Systems Theory and Applications (DSTA), Lodz (Poland), **2009, 2011**; **Chairman** de Sesiune & **Reviewer pentru Springer**, 9th Conference on Dynamic Systems Theory and Applications (DSTA), Lodz (Poland), **2007**;
- **Chairman** de Sesiune: Optics in Precision Mechanics and Mechatronics, 8th Intl. Conference on Mechatronics and Fine Mechanics (COMEFIM), Cluj-Napoca (Romania), June 8-10, **2006**;
- Membru, Comitetul de Organizare, reviewer - Proceedings of the ISREIE Aurel Vlaicu Univ. Symposia, Arad (Romania), **2000, 2002, 2004, 2006**; **Editor** - Engineering Proceedings, **2008**;

COORDONARE STUDENȚI CU PUBLICAȚII SEMNIFICATIVE (Referințe în “Lista de Publicații”)

- **Univ. Aurel Vlaicu Arad:** Kiss M. [IDB18, IDB19, J49-J51, C46, C47]; Patrusel V. [J42, IDB15, C41]; Pelle R. [C42]; Molnar V. [Cn34]; Berar T. [C41] – primul admis la Master, 2009; Andras F. [J51];
- **Membru al MentorNet** – din 2011 (<http://www.mentornet.net>).

MISCELLANEOUS

- 2010, Instrumentație Optică (Curs doctoral, 1 semestru), Univ. of Rochester (SUA), Prof. J.P. Rolland;
- 2010, Mar. 10, COMSOL Multiphysics Modeling Workshop (Training), Rochester (USA);
- 2010, Participare selecționată în Academic Reputation Survey of Times Higher Ed World University Rankings (cu Thomson Reuters);
- 2010, Includere în Marquis Who's Who in the World;
- 2009-2010, Participare la Optics Colloquia (săptămânale), Inst. of Optics, Univ. of Rochester, NY (USA);
- 2007, Includere în Marquis Who's Who in Science and Engineering;

PARTICIPARE LA SIMPOZIOANE

Internationale:

- EUCOMES: 3rd European Conference on Mechanism Science, Cluj-Napoca (Romania), **2010**;
- SPIE Photonics West (BIOS), San Francisco (USA), **2010**;
- Industrial Assoc. Meeting, Inst. of Optics, Univ. of Rochester, NY (USA), Oct. **2009**, Mar. **2010**;
- ROCAM: Romanian Conference on Advanced Materials, Brasov (Romania), **2009**;
- 1st Canterbury OCT and AO Workshop, SPIE Conference, Kent (UK), **2008**;
- Optical Systems Design, SPIE Conference, Glasgow (UK), **2008**;
- CARE (Coordinated Actions for Robotics in Europe) Consensus Meetings, Stuttgart (Germany), April **2008**, Pisa (Italy), Oct. **2008**;
- Photonics Europe, SPIE Conference, Strasbourg (France) **2008**;
- Conference on Dynamic Systems Theory and Applications (DSTA), Lodz (Poland) **2007, 2009**;
- Intl. DAAAM Symposia (DAAAM Intl. Vienna), Zadar (Croatia) **2007**, Vienna (Austria) **2009**, Zadar **2010**;
- 2nd EOS (European Optical Society) Topical Meeting, OμS, Capri (Italy) **2007**;
- 12th IFToMM Word Congress (Intl. Federation for the Promotion of the Theory of Mechanisms and Machines), Besancon (France), **2007**;
- IEEE/LEOS' ODIMAP V (5th Topical Meeting on Optoelectronic Distance/Displacement Measurements and Applications), Madrid (Spain) **2006**;
- Micro-to Nano-Photonics: ROMOPTO (EOS & SPIE Conference), Sibiu (Romania) **2006, 2009**;
- 1st IIW South-East European Welding Congress, Timisoara (Romania) **2006**;
- Conference on Fine Mechanics, Optics and Mechatronics – COMEFIM, Bucharest **1994, 1998**, Cluj-Napoca (Romania) **2006**;
- Intl. Conference VSU, Sofia (Bulgaria) **2006, 2007**;
- LASER – Word of Photonics Congress (SPIE Conference), Munchen (Germany) **2005, 2009**;

- IFToMM International Symposium on the Theory of Machines and Mechanisms – Syrom, Bucharest (Romania) **1993, 2001, 2005**, Brasov (Romania) **2009**;
- Modeling and Optimization in the Machine Building Field - MOCM 11, Bacau (Romania) **2005**;
- PAMM (Pannonian Applied Mathematical Meetings), PC 149–150, Timisoara (Romania) & Novi Sad (Serbia) **2004**, PC 154, Ballaton (Hungary) **2007**;
- SIOEL – Optoelectronics Intl. Conference, Bucharest (Romania) **1993, 2004**;
- 5th Intl. Conference of Metrology, Bucharest (Romania) **2001**;
- 1st Intl. Symposium of Complementary Medicine of 3rd Millenium, Oradea (Romania) **2000**;
- ETC – Intl. Electronics and Communications Symposium, Timisoara (Romania) **1998**;
- Mess Comp.'95 (9 Kongreßmesse für Industrielle Meßtechnik), Wiesbaden (Germany) **1995**;
- I. Congreso Iberoamericano de Ingenieria Mecanica, Madrid (Spain) **1993**.

Nationale:

- National Seminar on Mechanisms, Craiova **2008**, Timisoara **2009**;
- EUROP-RO Symposia, Bucharest April **2007**, Sept. **2007**;
- Universitaria Simpro, Petrosani **2006**;
- Aurel Vlaicu Univ. of Arad Symposia, Arad **1996, 1997, 2000, 2002, 2004, 2006, 2008**;
- National Industrial Robots Symposia, Timisoara **1992, 1996**, Oradea **2000**;
- Mechanisms and Mechanical Transmissions Symposia (M.T.M.), Timisoara **1992, 1996, 2000**;
- 17th Symposium of the Military Technical Academy, Bucharest **1997**;
- *Nature and Man* Life Science Museum Symposia, Ploiesti **1994, 1995, 1997**;
- *Man and Mountain* Symposia, Voineasa **1993**, Ramnicu Valcea **1994**;
- Univ. of Oradea Symposium, Oradea **1994, 2007**.



Lista de Publicații

<http://www.researcherid.com/rid/B-3031-2010>

h-index = 4

I. Articole în reviste ISI cu factor de impact (ISI IF 9.777; RIS 7.173)¹

6. **Duma V. F.***, Lee K.-S., Meemon P., Rolland J. P., Experimental investigations of the scanning functions of galvanometer-based scanners with applications in OCT², *Applied Optics* **50**(29), 5735-5749 (2011), ISSN 0003-6935 (print), ISSN 1539-4522 (online); <http://dx.doi.org/10.1364/AO.50.005735>, ISI IF **1.703/2010** (RIS **1.62573**) - also selected & published in *Virtual Journal for Biomedical Optics* 6(11), ISSN 1931-1532, 2011;

5. **Duma V. F.**, Optical choppers with circular-shaped windows: Modulation functions, *Communications in Nonlinear Science and Numerical Simulation* **16**(5), 2218-2224 (2011); ISSN 1007-5704; <http://dx.doi.org/10.1016/j.cnsns.2010.04.043>; ISI IF **2.697/2010**;

4. **Duma V. F.**, Optimal Scanning Function of a Galvanometer Scanner for an Increased Duty Cycle, *Optical Engineering* **49**(10), 103001 (2010); <http://dx.doi.org/10.1117/1.3497570>, ISSN 0091-3286; ISI IF **0.815/2010** (RIS **0.840**);

3. **Duma V. F.**, Radiometric versus geometric, linear and non-linear vignetting coefficient, *Applied Optics* **48**(32), 6355-6364 (2009); ISSN 0003-6935, <http://dx.doi.org/10.1364/AO.48.006355>; ISI IF **1.41/2009** (RIS **1.62573**);

2. **Duma V. F.*** and Nicolov M., Neutral density filters with Risley prisms: analysis and design, *Applied Optics* **48**(14), 2678-2685 (2009); ISSN 0003-6935, <http://dx.doi.org/doi:10.1364/AO.48.002678>, ISI IF **1.41/2009** (RIS **1.62573**);

1. **Duma V. F.**, Theoretical approach on optical choppers for top-hat light beam distributions, *Journal of Optics A: Pure and Applied Optics*, **10**(6), 064008 (2008); <http://iopscience.iop.org/1464-4258/10/6/064008/>; ISSN 1464-4258; ISI IF **1.742/2008** (RIS **1.45906**).

II. Cărți apărute în edituri recunoscute CNCS

B.11. **Duma V.F.** (Ed.), *Proceedings of the 3rd International Symposium: Research and Education in an Innovation Era, Engineering Sciences*, Arad, Nov. 10-12, **2010**, ISSN 20652569;

B.10. **Duma V.F.** (Ed.), *Proceedings of the 2nd International Symposium: Research and Education in an Innovation Era, Engineering Sciences*, Arad, Nov. 20-22, **2008**, ISSN 20652569, 502 pages;

B.9. **Duma V.F.** (Ed.), *Tools, Devices, and Control Apparatuses. Experimental Topics* (in Romanian), Aurel Vlaicu Univ. Publishing House, Arad, **2008**, ISBN 978-973-752-283-2, 194 pages;

B.8. Perju D.*, Ianos E., Mateas M., **Duma V.F.**, *Measuring Apparatuses and Systems. Experimental Works* (in Romanian), Politehnica, Timisoara, **2005**, ISBN 973-625-194-2, 267 pages.

B.7. **Duma V.F.**, *Scanning* (in Romanian), Politehnica, Timisoara, **2004**, ISBN 973-625-191-8, 190 pages.

¹ Autorul principal / de corespondență al lucrărilor cu mai mulți autori este indicat prin semnul *

² Top downloaded paper of *Applied Optics* (flagship journal of the Optical Society of America), Oct. 2011.

- B.6. **Duma V.F.**, *Vignetting* (in Romanian), Politehnica, Timisoara, **2004**, ISBN 973-625-154-3, 124 pages;
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A handwritten signature in black ink on a light yellow background. The signature is written in a cursive style and appears to read 'Duma V.F.'.