

**Prof. Univ. Dr. Octavian Cira**  
Departamentul Matematica-Informatică  
Facultatea de Științe exacte

## **L I S T A**

### **lucrărilor științifice**

#### **A. Teza de doctorat:**

*1.Rezolvarea numerica a ecuatiilor algebrice*, **1998.**, Universitatea de Vest din Timisoara.

Conducător Științific: Prof. dr. Stefan Maruster – susținută în data de 20 Martie 1998 la Universitatea de Vest din Timisoara.

#### **B. Cărți si capitole în cărți**

Anul 2010:

**1.** O. Cira *Aplicatii, probleme si exercitii rezolvate cu Mathcad-ul*, Ed. Matrix Rom, Bucuresti, 2010.

Anul 2012:

**2.** O. Cira *The Convergence Simultaneous Inclusion Methods*, Ed. Matrix Rom, Bucuresti, 20142

Anul 2014:

**3.** O. Cira & F. Smarandache *Solving Diophantine Equations*, Europa Nova, Bruxelles, 2014.

**4.** Optomechatronic Choppers with Rotating Elements: Design Programs

By: Cira, O.; Duma, V. -F.

Edited by: Awrejcewicz, J

Conference: 12th International Conference on Dynamical Systems-Theory and Applications (DSTA) Location:Lodz, POLAND Date: DEC 02-05, 2013

Sponsor(s): Lodz Univ Technol, Dept Automat, Biomechan & Mechatron

APPLIED NON-LINEAR DYNAMICAL SYSTEMS Book Series: Springer Proceedings in Mathematics & Statistics Volume: 93 Pages: 457-464 Published: 2014

**5.** Towards a Research Pole in Photonics in Western Romania

By: Duma, Virgil-Florin; Negrutiu, Meda L.; Sinescu, Cosmin; O. Cira et al.

Edited by: Costa, MFPCM; Zghal, M

Conference: 12th Education and Training in Optics and Photonics  
Conference Location: Porto, PORTUGAL Date:JUL 23-26, 2013

Sponsor(s): Int Commiss Opt; IEEE Photon Soc; Opt Soc; SPIE

12TH EDUCATION AND TRAINING IN OPTICS AND PHOTONICS  
CONFERENCE Book Series: Proceedings of SPIE Volume: 9289 Article  
Number: 928916 Published: 2014

6. Building an Optomechatronics Group in a young university in Western Romania  
 By: Duma, Virgil-Florin; Hutiu, Gheorghe; Cira, Octavian; et al.  
 Edited by: Costa, MFPCM; Zghal, M  
 Conference: 12th Education and Training in Optics and Photonics  
 Conference Location: Porto, PORTUGAL Date: JUL 23-26, 2013  
 Sponsor(s): Int Commiss Opt; IEEE Photon Soc; Opt Soc; SPIE  
 12TH EDUCATION AND TRAINING IN OPTICS AND PHOTONICS  
 CONFERENCE Book Series: Proceedings of SPIE Volume: 9289 Article  
 Number: 928913 Published: 2014

Anul 2013:

7. V.-F. Duma, A. Schitea, M. Tuef, O. Cira, C. Mnerie, Gh. Hutiu, D. Demian, I. Kaposta  
**Chapter**  
 New Trends in Educational Activity in the Field of Mechanism and Machine Theory  
 Volume 19 of the series Mechanisms and Machine Science pp 111-119  
 Date: 13 October 2013  
 Optomechatronics Applications of the Theory of Mechanisms with Active Student  
 Involvement in Research

### C. Lucrări indexate ISI/BDI publicate în ultimii 10 anii

Lucrari ISI

1. EXPERIMENTAL DATA PROCESSING IN A SOLAR HEATING SYSTEM  
 By: Silaghi, D.; Ionel, I.; Cira, O.  
 JOURNAL OF ENVIRONMENTAL PROTECTION AND  
 ECOLOGY, Volume: 12 Issue: 4A Pages: 2287-2293, 2011
2. Transmission functions of optical choppers for Gaussian beam distributions: Modeling and simulations  
 By: Cira, Octavian; Duma, Virgil-Florin  
 Edited by: Bodermann, B; Frenner, K; Silver, RM  
 Conference: Conference on Modeling Aspects in Optical Metrology IV as part of the SPIE  
 Optical Metrology Symposium Location: Munich, GERMANY Date: MAY 13-14, 2013  
 Sponsor(s): SPIE  
 MODELING ASPECTS IN OPTICAL METROLOGY IV Book Series: Proceedings of  
 SPIE Volume: 8789 Article Number: 87890E Published: 2013

Lucrari BDI

Anul 2011:

3. **O. Cira** and C. M. Cira. Optimal inequality factor for Durand-Kerner's and Tanabe's methods. *Revue d'Analyse Numérique et de Théorie de l'Approximation*, 40(2):128–148, 2011.

Anul 2014:

4. **O. Cira**. Smarandache's conjecture on consecutive primes. *International J. of Math. Combin.*, 4:69–91, December 2014.

Anul 2015:

5. **O. Cira** and F. Smarandache. Luhn prime numbers. *Theory and Applications of Mathematics & Computer Science*, 5(1):29–36, 2015

**D. Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți (neindexate)**

**- Lucrări in volume de conferințe**

Anul 2011:

1. **O. Cira** and St. Maruster. Optimal inequality factor for Ehrlich-Aberth's method. In SYNASC 2011 13th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, pages 63–70, Timisoara, România, 26-29 September 2011.
2. Silaghi, I. Ionel, and **O. Cira**. The experimental data processing in a solar heating system. *Journal of Environmental Protection and Ecology*, 12(4A):2287–2293, 2011.

Anul 2012:

3. **O. Cira** and Duma V. F. Modeling the modulation functions of optical choppers. In Proc. 4th ISREIE, Engineering, pages 79–84. "Aurel Vlaicu" University of Arad, 8–9 Nov. 2012.

Anul 2013:

4. **O. Cira** and V. F. Duma. Transmission functions of optical choppers for Gaussian beam distributions: Modeling and simulations. In B. Bodermann, K. Frenner, and R. M. Silver, editors, Proc. SPIE 8789, Modeling Aspects in Optical Metrology IV (LASER Congress), 87890E, München, 13-16 May 2013.
5. V. F. Duma, A. Schitea, M. Tuef, **O. Cira**, C. Mnerie, Gh. Hutiu, D. Demian, and I. Kaposta. Optomechatronics applications of the theory of mechanisms with active student involvement in research. In 1st International Symposium on the Education Mechanism and Machine Science. Juan Carlos García-Prada & Cristina Castejón MAQLAB Research Group Department of Mechanical Engineering, Universidad Carlos III of Madrid, Springer, 13 & 14 June 2013.
6. V. F. Duma, Gh. Hutiu, **O. Cira**, D. Demian, C. Mnerie, I. Kaposta, A. Schitea, and M. Tuef. Building an Optomechatronics Group in a young university in Western România. SPIE Digital Library, 2013.

Anul 2014:

7. V. F. Duma, D. Demian, and **O. Cira**. Optical choppers with high speed rotating elements. In F. Wyrowski, J. T. Sheridan, J. Tervo, and Y. Meuret, editors, Proc. of SPIE Optical Modelling and Design III, volume 9131, 91310E, 2014
8. V. F. Duma, G. Hutiu, **O. Cira**, D. Demian, C. Mnerie, and I. Kaposta. Building an Optomecha-tronics Group in a young university in Western România. In 12th Education and Training in Optics and Photonics, volume 9289, 928913-1, Porto (Portugal), July 22-26, 2014.
9. **O. Cira** and V. F. Duma. Optical choppers wheels with different configurations: Design programs. In C. Todea, A. Podoleanu, and Duma V. F., editors, Proc. SPIE, 5th Intl Conference Lasers in Medicine, volume 8925. Universitatea de Medicina si Farmacie "Victor Babes, " din Timisoara, România, Febr. 2014.
10. **O. Cira** and F. Smarandache. Luhn prime numbers. In International Symposium Research and Education in Innovation Era – 5rd Edition, pages 7–14, Arad, November 2014. Universitatea „Aurel Vlaicu“ din Arad.
11. **O. Cira**. Inverse narcissistic numbers. In International Symposium Research and Education in Innovation Era – 5rd Edition, pages 36–41, Arad, November 2014. Universitatea „Aurel Vlaicu“ din Arad.

**E. Brevete obținute în întreaga activitate -**

**F. Contracte de cercetare în întreaga activitate -** Sisteme pentru tomografia optica de coerenta (OCT) cu dispozitive de mâna si endoscopice pentru investigatii în timp real în stiinta materialelor si în vivo în domeniul biomedical, PN-II-PT-PCCA-2011-3.2.-1682, director prof. dr. ing. Virgil Florin Duma

**Data:**

**Semnătura:**