

S.I. dr. ing. FRUNZETE Madalin Corneliu

I. Teza de doctorat

T1. M. Frunzete "Contribuții în domeniul criptografiei bazată pe sisteme haotice, folosind teoria informației și metode statistice" (2011)

II. Carti

C1. I. Sztojanov, S. Pasca, M. Frunzete, "Circuite Programabile cu Aplicații în Medicina", Politehnica Press. 2013, (113 pag)

III. Articole științifice

- FRUNZETE, M., & SACALEANU, D. I. (2018, October). Chaos Statistical Independence in Blockchain. In *2018 IEEE 24th International Symposium for Design and Technology in Electronic Packaging(SIITME)* (pp. 323-326). IEEE.
- Frunzete, M., & Cucu, H. (2017, September). Observability coefficient for 2D dynamical systems. In *2017 Signal Processing: Algorithms, Architectures, Arrangements, and Applications (SPA)* (pp. 292-295). IEEE.
- Frunzete, M., Perisoara, L., & Barbot, J. P. (2016, July). Continuous Time Dynamical System and Statistical Independence. In *International Conference on Computational Science and Its Applications* (pp. 470-479). Springer International Publishing.
- Frunzete, M., & Popescu, A. A. (2016, June). Information channel theory for traffic control. In *Communications (COMM), 2016 International Conference on* (pp. 477-480). IEEE.
- Frunzete, M., Popescu, A. A., & Barbot, J. P. (2015). Dynamical Discrete-Time Rössler Map with Variable Delay. In *Computational Science and Its Applications--ICCSA 2015* (pp. 431-446). Springer International Publishing.
- V. Stefanescu, D. Stoichescu, M. Frunzete and B. Florea. INFLUENCE OF COMPUTER COMPUTATION PRECISION IN CHAOS ANALYSIS. Scientific Bulletin of University Politehnica of Bucharest, Seria A Applied Mathematics and Physics, ISSN 1223-7027, vol 75, issue 1, pp. 151-162, 2013; FI
- Stefanescu, V., Barbot, J. P., Frunzete, M., & Florea, B. "Route to chaos due to power source frequency." New Trends in Audio & Video and Signal Processing: Algorithms, Architectures, Arrangements, and Applications NTAV/SPA 2012, ISBN 978-83-62065-02-8, pages 11-16, 2012
- M. Frunzete, J.-P. Barbot and C. Letellier; Influence of the singular manifold of nonobservable states in reconstructing chaotic attractors; Phys. Rev. E, American Physical Society, 86, 026205, ISI's Impact (2011): 2.255, 2012.
- M. Frunzete, A. Luca, A. Vlad, and J-P. Barbot. Observability and Singularity in the Context of Rossler Map. Scientific Bulletin of University Politehnica of Bucharest, Seria A Applied Mathematics and Physics, ISSN 1223-7027 (IF 0.253), vol 74, issue 1, pp. 83-92, 2012.
- M. Frunzete, A. Luca, A. Vlad, and J-P. Barbot. Statistical Behaviour of Discrete-Time Rossler System with Time Varying Delay. In Beniamino Murgante, Osvaldo Gervasi, Andrs Iglesias, David Taniar, and Bernady Apduhan, editors, Computational Science and Its Applications - ICCSA 2011, volume 6782 of Lecture Notes in Computer Science, pages 706–720. Springer Berlin / Heidelberg, 2011.
- M. Frunzete, L Yu, J-P. Barbot, and A. Vlad. Compressive Sensing Matrix Designed by Tent Map, for Secure Data Transmission. In Proc. (SPA) Signal Processing Algorithms, Architectures, Arrangements, and Applications, pages 11–16, 2011

- M. Frunzete, B.C. Florea, V. Stefanescu, and D.A. Stoichescu. Image Enciphering by Using Rossler Map. In Proceedings of the 2011 IEEE International Conference on Intelligent Computer Communication and Processing, pages 307–310, 2011.
- B.C. Florea, M. Frunzete, and V. Stefanescu. An integrated e-learning platform for use in higher education. In 2011 IEEE 17th International Symposium for Design and Technology in Electronic Packaging (SIITME), pages 369–372, 2011.
- O. Datcu and M. Frunzete. Deux exemples de syst`emes hyper-chaotiques discrets 3d utilisés pour le cryptage. In Journees Doctorales - Modélation, Analyse et Commande des Systèmes dynamiques (JD-MACS), pages 409–414, 2011.
- M. Frunzete, A. Luca, and A. Vlad. On the Statistical Independence in the Context of the Rossler Map. In 3rd Chaotic modeling and Simulation International Conference (CHAOS2010), Chania, Greece, <http://cmsim.net/sitebuildercontent/sitebuilderfiles/>, 2010.
- A. Luca, A. Vlad, B. Badea, and M. Frunzete. A study on statistical independence in the tent map. In Proc. Int. Symp. Signals, Circuits and Systems ISSCS 2009, pages 1–4, 2009.
- A. Vlad, A. Luca, and M. Frunzete. Computational Measurements of the Transient Time and of the Sampling Distance That Enables Statistical Independence in the Logistic Map. In O. Gervasi, D. Taniar, B. Murgante, A. Lagan, Y. Mun, and M. Gavrilova, editors, Computational Science and Its Applications ICCSA 2009, volume 5593 of Lecture Notes in Computer Science, pages 703–718. Springer Berlin / Heidelberg, 2009.

IV. Prezentari in manifestari internationale

Popescu, A., Datcu, M., & **Frunzete, M.** Complex statistics of Synthetic Aperture Radar data using high resolution TerraSAR-X images.

The 5thTerraSAR-X Science Team Meeting, DLR 2013

<https://elib.dlr.de/88798/1/A%20Popescu%20-%20Complex%20statistics.pdf>

Madalin Frunzete & [Jean-Pierre Barbot](#) (ENSEA, Cergy-Pontoise). *Observability index and observability quality index for chaotic systems,*

8-10 Novembre 2010 : Synchronization, control & Bio-dynamics (Besançon)

http://www.coria.fr/dycoec/spip.php?sk_dyc2/IMG/spip.php?article114