

Memoriu de activitate științifică

Subsemnatul Pleșa Mihail-Iulian student-doctorand în cadrul Școlii doctorale de Informatică a Facultății de Matematică și Informatică, Universitatea din București, în domeniul Informatică, înmatriculat la studiile universitare de doctorat la data de 01.10.2021, domeniul Informatică, forma învățământ cu frecvență zi, autor al tezei de doctorat intitulată „Security Aspects of Membrane Computing”, conducător de doctorat Prof. Univ. Dr. Florentin Ipate declar următoarele activități realizate în cadrul stagiului doctoral:

A. Listă de lucrări

1. Mihail-Iulian Pleșa, Marian Gheorghe, Florentin Ipate, and Gexiang Zhang. A federated learning protocol for Spiking Neural Membrane systems. *International Journal of Neural Systems*, 34(12):2450062,2024, Rank A*.
2. Mihail-Iulian Pleșa, Marian Gheoghe, Florentin Ipate, and Gexiang Zhang. A key agreement protocol based on Spiking Neural P systems with anti-spikes. *Journal of Membrane Computing*, 4(4):341–351,2022,Rank B.
3. Mihail-Iulian Pleșa, Marian Gheorghe, Florentin Ipate, and Gexiang Zhang. Applications of Spiking Neural P systems in cybersecurity. *Journal of Membrane Computing*, pages1–8, 2024,RankB.
4. Mihail-Iulian Pleșsa, Marian Gheoghe, and Florentin Ipate. Private inference on layered Spiking Neural P systems. In *International Work-Conference on the Interplay Between Natural andArtificialComputation*,pages 163–172. Springer,2024, Rank C.
5. Mihail-Iulian Pleșa, Marian Gheorghe, and Florentin Ipate. Privacy-preserving linear computations in Spiking Neural P systems. In *Proceedings of the 7th Symposium on Working Formal Methods(FROM 2023)*, volume389 of EPTCS, pages110–119,2023, Rank D.
6. Mihail-Iulian Ples,a. A quantum safe analysis of helios voting system. *Proceedings of the Romanian Academy- series A*, 21(1),2020, Rank C.
7. Mihail-Iulian Pleșa and Gilles Macario-Rat. Singularization: A new approach to designing block ciphers for resource-constrained devices. In *Proceedings of the 7th International ix Workshop on Attacks and Defenses for Internet of Things (ADIoT 2024)*, *Lecture Notes in ComputerScience (LNCS)*.Springer, 2024,Rank C.
8. Mihail-Iulian Pleșa and Ruxandra F. Olimid. Privacy-preserving multi-party search via homomorphic encryption with constant multiplicative depth. In *Proceedings of the International Conference on Security for Information Technology and Communications (SECITC 2024)*, *Lecture Notes in Computer Science (LNCS)*, Bucharest, Romania, 2024, Springer Rank C.
9. Mihail-IulianPleșa. Hybrid scheme for secure communications using quantum and classical mechanisms. In *2017 9th International Conference on Electronics, Computers and Artificial Intelligence(ECAI)*, pages1–6. IEEE, 2017, RankD.

10. Mihail-Iulian Pleșa and Togan Mihai. A new quantum encryption scheme. *Advanced Journal of Graduate Research*, 4(1):59–67, 2018, Rank D.
11. Mihail-Iulian Pleșa and Cezar Pleșca. Privacy-preserving clustering: A new approach based on invariant order encryption. *Journal of Military Technology*, 3(2), 2020, Rank D.
12. Daniel Zentai, Mihail Pleșa, and Robin Frot. A multiparty commutative hashing protocol based on the discrete logarithm problem. In *Proceedings of the 3rd International Conference on Cryptography and Blockchain (CRBL2023)*, volume 13, November 2023, Rank D.
13. Mihail Iulian Pleșa and Maria-Carmen Pleșa. Self-repairing mechanical components using artificial intelligence. *Scientific Bulletin "Mircea cel Batran" Naval Academy*, 24(1):17–28, 2021, Rank D.
14. Maria-Carmen Pleșa and Mihail-Iulian Pleșa. Using quantum communications for maritime signal flags. *Scientific Bulletin "Mircea cel Batran" Naval Academy*, 22(1), 2019, Rank D.

B. Conferințe

1. CMC 23 - 23rd Conference on Membrane Computing 2022
2. CMC 24 - 24th Conference on Membrane Computing 2023
3. FROM 2023 - Symposium on Working Formal Methods 2023
4. IWINAC 23 - International Work-Conference on the Interplay Between Natural and Artificial Computation 2023
5. ADIoT 2024 - The 7th International Conference on Attacks and Defenses for Internet-of-Things 2024

