# List of Publications

## PhD Thesis

### 2017 An algebraic approach for the resolution of algorithmic problems raised by cryptography and coding theory

<https://tel.archives-ouvertes.fr/tel-01690012/file/dragoivladflorin2.pdf>

## International Conferences

2020 **Employing sorting nets for designing reliable computing nets**, *Mariana Nagy, Vlad-florin Drăgoi, Valeriu Beiu*, International Conference on on Nanotechnology (IEEE-NANO), July 2020, Virtual. (ISI WOS, Scopus).

2020 **On recursively defined combinatorial classes and labelled trees**, *Ali Chouri, Vlad-florin Drăgoi, Jean-Gabriel Luque*, International Conference on on Computers Communications and Control, May 2020, Virtual. (ISI WOS, Scopus).

<https://doi.org/10.1007/978-3-030-53651-0_2>

2020 **Tight bounds on the coefficients of consecutive k-out-of-n :F systems**, *Vlad-florin Drăgoi, Simon Cowell, Valeriu Beiu*, International Conference on on Computers Communications and Control, May 2020, Virtual. (ISI WOS, Scopus).

<https://doi.org/10.1007/978-3-030-53651-0_3>

2018 **Vulnerabilities of the McEliece Variants Based on Polar Codes**, *Vlad Drăgoi, Valeriu Beiu, Dominic Bucerzan*, International Conference on Security for Information Technology and Communications (SecITC), November 8–9, 2018, Bucharest, Romania. (Scopus).

<https://link.springer.com/chapter/10.1007/978-3-030-12942-2_29>

2018 **On posets for reliability : How fine can they be ?**, *Valeriu Beiu, Simon R. Cowell, Vlad- Florin Dragoi*, International Workshop on Soft Computing Applications SOFA, Sept. 2018, Arad, Romania (Scopus).

<https://doi.org/10.1007/978-3-030-51992-6_10>

2018 **Effective Conductances of Moore-Shannon Hammocks**, *Simon R. Cowell, Vlad Dragoi, Valeriu Beiu, Noemi Rohatinovici*, IEEE International Conference on Nanotechnology (IEEE- NANO), Cork, Ireland, JUL 23-26, 2018 (ISI WOS).

<http://dx.doi.org/10.1109/NANO.2018.8626295>

2018 **Ordering Series and Parallel Compositions**, *Vlad Dragoi, Simon R. Cowell, Valeriu Beiu*, IEEE International Conference on Nanotechnology (IEEE-NANO), Cork, Ireland, JUL 23-26, 2018 (ISI WOS).

<http://dx.doi.org/10.1109/NANO.2018.8626408>

2018 **Survey on Cryptanalysis of Code-Based Cryptography : From Theoretical to Physical Attacks**, *Vlad Dragoi, Tania Richmond, Dominic Bucerzan and Axel Legay*, IEEE International Conference on Computers Communications and Control, Baile Felix, Oradea, Romania, May 2018. (ISI WOS, Scopus).

<http://dx.doi.org/10.1109/ICCCC.2018.8390461>

2018 **Hammocks versus Hammock**, *Valeriu Beiu, Simon R. Cowell, Vlad Dragoi, Sorin Hoară and Păstorel Gaşpar*, IEEE International Conference on Computers Communications and Control, Baile Felix, Oradea, Romania, May 2018. (ISI WOS, Scopus).

<http://dx.doi.org/10.1109/ICCCC.2018.8390447>

2018 **Can Series and Parallel Compositions Improve on Hammocks ?**, *Vlad Dragoi, Simon R. Co- well, Valeriu Beiu, Sorin Hoară and Păstorel Gaşpar*, IEEE International Conference on Computers Communications and Control,Baile Felix, Oradea, Romania, May 2018. (ISI WOS, Scopus).

<http://dx.doi.org/10.1109/ICCCC.2018.8390448>

2018 **On Algorithms for Evaluating the Reliability of Large Hammock Networks**, *Noemi-Clara Rohatinovici, Valeriu Beiu, Simon R. Cowell, Leonard Daus, Vlad Dragoi and Valentina Emilia Balas*, IEEE International Conference on Computers Communications and Control,Baile Felix, Oradea, Romania, May 2018. (ISI WOS, Scopus).

<http://dx.doi.org/10.1109/ICCCC.2018.8390449>

2017 **The Simple Roots Problem**, *Dominic Bucerzan, Vlad Dragoi and Tania Richmond*, Romanian Cryptology Days (RCD), Sept. 18-20, 2017, Bucharest, Romania. (ISI WOS, Scopus).

<http://www.acad.ro/sectii2002/proceedings/doc2017-4s/03artSupl.pdf>

2017 **Evolution of the McEliece Public Key Encryption Scheme**, *Dominic Bucerzan, Vlad Dragoi and Hervé Talé Kalachi*, International Conference on Security for Information Technology and Communications (SecITC), June 8-9, 2017, Bucharest, Romania. (Scopus).

<https://link.springer.com/chapter/10.1007/978-3-319-69284-5_10>

2016 **Algebraic Properties of Polar Codes From a New Polynomial Formalism**, *Magali Bardet, Vlad Dragoi, Ayoub Otmani, Jean-Pierre Tillich*, IEEE International Symposium on Information Theory (ISIT), July 10-15, 2016, Barcelona, Spain. (ISI WOS, Scopus).

<http://dx.doi.org/10.1109/ISIT.2016.7541295>

2016 **Weak Keys for the Quasi-Cyclic MDPC Public Key Encryption Scheme**, *Magali Bardet, Vlad Dragoi, Jean-Gabriel Luque, Ayoub Otmani*, Progress in Cryptology – AFRICACRYPT, April 13-15, 2016, Fes, Morocco. (Scopus).

<http://dx.doi.org/10.1007/978-3-319-31517-1_18>

2016 **Cryptanalysis of the McEliece Public Key Cryptosystem based on Polar Codes**, *Magali Bardet, Julia Chaulet, Vlad Dragoi, Ayoub Otmani, Jean-Pierre Tillich*, International Workshop on Post Quantum Cryptography (PQCrypt), Feb. 24-26, 2016, Fukuoka, Japan. (ISI WOS, Scopus).

<http://dx.doi.org/10.1007/978-3-319-29360-8_9>

2015 **Etude d’un Système de Chiffrement de Type McEliece à Base de Codes Polaires**, *Magali Bardet, Julia Chaulet, Vlad Dragoi, Ayoub Otmani, Jean-Pierre Tillich*, Journées Codage et Cryptographie, La Londe-les-Maures, Franţa.

<https://hal.inria.fr/hal-01240843/>

2013 **Polynomial Structures in Code-based Cryptography**, *Vlad Dragoi, Pierre-Louis Cayrel, Brice Colombier, Tania Richmond*, 14th International Conference on Cryptology in India, Dec. 7-10, 2013, Mumbai, India. (Scopus).

<http://dx.doi.org/10.1007/978-3-319-03515-4_19>

## International Journals

2020 **Solving a Modified Syndrome Decoding Problem using Integer Programming**, *Vlad-Florin Dragoi, Pierre-Louis Cayrel, Brice Colombier, Dominic Bucerzan, Sorin Hoară*, International Journal of Computers Communications & Control, vol. 15, no. 5, 2020. (ISI WOS, Scopus).

<https://doi.org/10.15837/ijccc.2020.5.3920>

2020 **Studying the binary erasure polarization subchannels using network reliability**, *Vlad Drăgoi, Valeriu Beiu*, IEEE Communications Letters, vol.24, no.1, pp. 62-66, jan. 2020. (ISI WOS, Scopus).

<http://doi.org/10.1109/LCOMM.2019.2947910>

### 2019 Cubic Spline Approximation of the reliability polynomials of two dual hammock networks,

*Gabriela Cristescu, Vlad Drăgoi*, TJMM, vol.11, no.1-2, pp. 77-90, 2019.

<http://doi.org/10.1109/LCOMM.2019.2947910>

2018 **How Reliable are Compositions of Series and Parallel Networks Compared with Ham- mocks ?**, *Vlad Dragoi, Simon R. Cowell, Valeriu Beiu, Sorin Hoară and Păstorel Gaşpar*, In- ternational Journal of Computers Communications & Control, vol. 13, no. 5, 2018. (ISI WOS, Scopus).

<https://doi.org/10.15837/ijccc.2018.5.3354>

2018 **Cryptanalysis of a Public Key Encryption Scheme Based on QC-LDPC and QC-MDPC**, *Vlad Dragoi, Hervé Talé Kalachi* , IEEE Communications Letters, vol. 22 ,pp. 264-267, Feb. 2018. (ISI WOS, Scopus).

<http://doi.org/10.1109/LCOMM.2017.2779449>

2017 **Improved Timing Attacks against the Secret Permutation in the McEliece PKC**, *Dominic Bucerzan, Pierre-Louis Cayrel, Vlad Dragoi, Tania Richmond*, International Journal of Computers Communications & Control , vol. 12, no. 1, pp. 7-25, 2017. (ISI WOS, Scopus).

<http://dx.doi.org/10.15837/ijccc.2017.1.2780>