

PUBLICATION LIST

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July 9<sup>th</sup>, 2018

- (1) *Identities related to the Erdős-Straus conjecture*, in progress
- (2) *Archimedean solids and half-domination arrangements*, in progress
- (3) *Counting equilateral triangles in  $\{0, 1, 2, \dots, n\}^4$* , in progress
- (4) *Regular lattice tetrahedrons and their Ehrhart polynomial*, in progress
- (5) *Lattice equilateral triangles in the half-plane model of Hyperbolic Geometry*, in progress
- (6) *Apollonius “circle” in Spherical Geometry*, in progress
- (7) *Ehrhart polynomial for lattice squares, cubes and hypercubes*, *Revue Roumaine de Mathématique Pures et Appliquées*, **xx**(1) (2018), pp.
- (8) *Random triangles in planar regions containing a fixed point*, *Rendiconti del Circolo Matematico di Palermo (Series 2)*, to appear
- (9) *A variation on bisecting the binomial coefficients*, *Discrete Applied Mathematics*, **228**(2018), pp.
- (10) *Apollonius “circle” in Hyperbolic Geometry*, *Forum Geometricorum*, **18** (2018), pp. 135-140
- (11) *Bisecting binomial coefficients*, with T. Martinsen and P. Stănică, *Discrete Applied Mathematics*, **227**(2017), pp. 70-83
- (12) *Gaussian Integers and Unit Fractions*, with K. Bradford, *Acta Math. Univ. Comenianae*, **LXXXVI** (2017), pp. 127-141
- (13) *New parametrization of  $A^2 + B^2 + C^2 = 3D^2$  and Lagrange’s four-square theorem*, *An. Științ. Univ. Al. I. Cuza Iași. Mat. (N.S.)*, vol. **62**(3) (2016), pp. 823-833
- (14) *The signum equation for Erdős-Surányi sequences*, with Dorin Andrica, vol. **15A** (2015): *Proceedings of Integers 2013: The Erdos Centennial Conference*
- (15) *A geometric reduction of the Erdős-Straus conjecture*, with Kyle Bradford, *Advanced Modeling and Optimization*, **17**(1) (2015), pp. 41-54
- (16) *Equilateral triangles in  $\mathbb{Z}^4$* , *Vietnam J. Math.* vol. **43**(3) (2015), pp. 525-539
- (17) *On a conjecture on the number of polynomials with coefficients in  $[n]$* , with Dorin Andrica, Sneha Chaubey, and Alexandru Zaharescu, *Bull. Math. Soc. Sci. Math. Roumanie*, vol. **58**(106) (2015), pp. 19-31

- (18) *Some unexpected Connections between Analysis and Combinatorics*, with Dorin Andrica, *Mathematics without boundaries: survey in pure mathematics*, Themistocles M. Rassias and Panos Pardalos, Editors, Springer (2014)
- (19) *On polynomials with coefficients in  $[n]$* , with Dorin Andrica, An. St. Univ. Ovidius Constanta, Vol. **22(1)**, 2014, 13-23
- (20) *Primes of the form  $\pm a^2 \pm qb^2$* , with Jeff Patterson, Stud. Univ. Babes-Bolyai Math. **58** (2013), No. 4, pp. 421-430
- (21) *Estimations of the Rate of Interest for an Annuity Certain*, with R. Stephens, Journal of Financial and Economic Practice, **13(2)**(2013), pp. 84-97
- (22) *Lattice Platonic Solids and their Ehrhart polynomial*, Acta Math. Univ. Comenianae, **82(1)** (2013), pp. 147-158
- (23) *Ehrhart's polynomial for equilateral triangles in  $\mathbb{Z}^3$* , Australas. J. Combinatorics, **55** (2013), pp. 189-204
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### Future work/projects

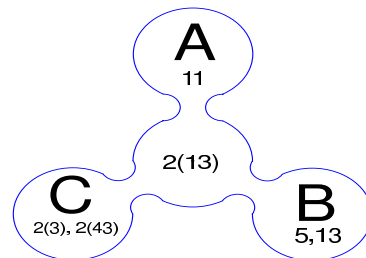
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- (3) *Lecture Notes in Number Theory*, [\\*/notes/ntbook.pdf](*/notes/ntbook.pdf)
- (4) *Wavelets sets in  $\mathbb{R}^n$  associated with non-expansive dilation matrices*
- (5) *The basics of calculus with emphasis on transcendental functions* [\\*/notes/calclnotes.pdf](*/notes/calclnotes.pdf)
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- (8) *Putnam Training Problems and Solutions*
- (9) *Lecture Notes in Abstract Algebra*

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Three classes of integers