

# Mircea Merca

## Listă de Lucrări

### ISI Web of Science Core Collection

- 2012
1. The truncated pentagonal number theorem (with George E. Andrews), *Journal of Combinatorial Theory, Series A* 119: 1639–1643 (2012) MR2946378. **IF 0.979**
- 2013
2. Binary diagrams for storing ascending composition, *The Computer Journal* 56(11): 1320–1327 (2013). **IF 1.000**
  3. A convolution for complete and elementary symmetric functions, *Aequationes Mathematicae* 86(3), 217–229 (2013) MR3127006. **IF 1.000**
  4. A note on the r-Whitney numbers of Dowling lattices, *Comptes Rendus Mathematique* 351(17-18), 649–655 (2013) MR3124320. **IF 0.446**
- 2014
5. A note on the Jacobi-Stirling numbers, *Integral Transforms and Special Functions* 25(3), 196–202 (2014) MR3172033. **IF 0.528**
  6. On some power sums of sine or cosine, *American Mathematical Monthly* 121(3), 244–248 (2014) MR3168997. **IF 0.349**
  7. A generalization of the symmetry between complete and elementary symmetric functions, *Indian Journal of Pure and Applied Mathematics* 45(1), 75–89 (2014) MR3180533. **IF 0.233**
  8. New upper bounds for the number of partitions into a given number of parts, *Journal of Number Theory* 45(1), 75–89 (2014) MR3208404. **IF 0.596**
  9. Some experiments with complete and elementary symmetric functions, *Periodica Mathematica Hungarica* 69(2), 182–189 (2014) MR3278955. **IF 0.286**
  10. A new connection between r-Whitney numbers and Bernoulli polynomials, *Integral Transforms and Special Functions* 25(12), 937–942 (2014) MR3267747. **IF 0.528**
- 2015
11. A new look on the generating function for the number of divisors, *Journal of Number Theory* 149, 57–69 (2015) MR3296001. **IF 0.596**
  12. A connection between Jacobi-Stirling numbers and Bernoulli polynomials, *Journal of Number Theory* 151, 223–229 (2015) MR3314211. **IF 0.596**
  13. An alternative to Faulhaber’s formula, *American Mathematical Monthly* 122(6), 599–601 (2015) MR3361745. **IF 0.349**
  14. The bisectional pentagonal number theorem, *Journal of Number Theory* 157, 223–232 (2015) MR3373239. **IF 0.596**
  15. A generalization of Euler’s pentagonal number recurrence for the partition function, *The Ramanujan Journal* 37(3), 589–595 (2015) MR3370707. **IF 0.563**
  16. A double inequality involving Erdos-Borwein constants, *Miskolc Mathematical Notes*, 16(1), 277–281 (2015) MR3384606. **IF 0.335**
  17. Augmented monomials in terms of power sums, *SpringerPlus*, 4:724 (2015). **IF 0.982**
- 2016
18. The cardinal sine function and the Chebyshev-Stirling numbers, *Journal of Number Theory*, 160, 19–31 (2016) MR3425196. **IF 0.596**
  19. Combinatorial interpretations of a recent convolution for the number of divisors of a positive integer, *Journal of Number Theory*, 160, 60–75 (2016) MR3425199. **IF 0.596**
  20. A note on the partitions involving parts of  $k$  different magnitudes *Journal of*

- Number Theory*, 162, 23–34 (2016) MR3448259. [IF 0.596](#)
21. Padovan numbers as sums over partitions into odd parts (with Cristina Ballantine), *Journal of Inequalities and Applications*, 2016:1 (2016) MR3439399. [IF 0.630](#)
22. A new look on the truncated pentagonal number theorem, *Carpathian Journal of Mathematics*, 32(1), 97-101 (2016). [IF 0.610](#)
23. Asymptotics of the Chebyshev-Stirling numbers of the first kind, *Integral Transforms and Special Functions*, 27(4), 259-267 (2016) MR3462120. [IF 0.528](#)
24. Fast computation of the partition function, *Journal of Number Theory*, 164, 405-416 (2016) MR3474396. [IF 0.596](#)
25. Stirling numbers and integer partitions, *Quaestiones Mathematicae*, 39(4), 457-469 (2016) MR3439399. [IF 0.810](#)
26. Compositions Having At Least One 1, *American Mathematical Monthly*, 123(5), 505-506 (2016) [IF 0.349](#)
27. A partition inequality, *American Mathematical Monthly*, 123(6), 614-614 (2016) [IF 0.349](#)
28. A Series Identity Involving Partitions and Divisors, *American Mathematical Monthly*, 123(6), 618-619 (2016) [IF 0.349](#)
29. A Recurrence from Euler's Pentagonal Number Theorem, *American Mathematical Monthly*, 123(9), 942-943 (2016) [IF 0.349](#)
30. Connections between central factorial numbers and Bernoulli polynomials, *Periodica Mathematica Hungarica*, 73(2), 259-264 (2016) MR3564569. [IF 0.286](#)
31. New convolutions for complete and elementary symmetric functions, *Integral Transforms and Special Functions*, 27(12), 965-973 (2016). [IF 0.528](#)
32. On the Song recurrence relation for the Riemann zeta function, *Miskolc Mathematical Notes*, 17(2), 941–945 (2016) [IF 0.335](#)
- 2017
33. New convolutions for the number of divisors (with Cristina Ballantine), *Journal of Number Theory*, 170, 17-34 (2017) MR3541695. [IF 0.596](#)
34. On families of linear recurrence relations for the special values of the Riemann zeta function, *Journal of Number Theory*, 170, 55-65 (2017) MR3541698. [IF 0.596](#)
35. On the number of partitions into parts of  $k$  different magnitudes, *Discrete Mathematics*, 340(4), 644-648 (2017). [IF 0.600](#)
36. New relations for the number of partitions with distinct even parts *Journal of Number Theory*, 176, 1–12 (2017). [IF 0.596](#)
37. Inequalities involving the generating function for the number of partitions into odd parts (with Cristina Ballantine), *Quaestiones Mathematicae*, 40(3), 319–332 (2017). [IF 0.810](#)
38. Lambert series and conjugacy classes in  $GL$ , *Discrete Mathematics*, 340, 2223–2233 (2017). [IF 0.600](#)
39. The Riemann zeta function with even arguments as sums over integer partitions, *American Mathematical Monthly*, 124(6), 554–557 (2017). [IF 0.349](#)
- online first
40. From a Rogers's identity to overpartitions, *Periodica Mathematica Hungarica*, accepted 2016, to appear [IF 0.286](#)
41. Parity of sums of partition numbers and squares in arithmetic progressions (with Cristina Ballantine), *The Ramanujan Journal*, accepted 2016, to appear [IF 0.563](#)
42. The Lambert series factorization theorem, *The Ramanujan Journal*, accepted 2016, to appear [IF 0.563](#)
- accepted
43. New recurrences for Euler's partition function, *Turkish Journal of Mathematics*, accepted 2016, to appear [IF 0.378](#)
44. Binomial transforms and partitions into parts of  $k$  different magnitudes, *The Ra-*

*manujan Journal*, accepted 2017, to appear **IF 0.563**

45. Finite differences of Euler's zeta function (with Cristina Ballantine), *Miskolc Mathematical Notes*, accepted 2017, to appear **IF 0.335**
46. On the number of partitions into odd parts or congruent to  $\pm 2 \pmod{10}$ , *Contributions to Discrete Mathematics*, accepted 2017, to appear **IF 0.480**
47. An infinite sequence of inequalities involving special values of the Riemann zeta function, *Mathematical Inequalities & Applications*, accepted 2017, to appear **IF 0.544**

### Other Refereed Research Papers

- 2011      48. Inequalities and Identities Involving Sums of Integer Functions, *Journal of Integer Sequences* 14(9), Article 11.9.1, (2011) MR2859985.
- 2012      49. Fast Algorithm for Generating Ascending Compositions, *Journal of Mathematical Modelling and Algorithms* 11(1), 89–104 (2012) MR2910461.  
50. A Note on Cosine Power Sums, *Journal of Integer Sequences* 15(5), Article 12.5.3 (2012) MR2942747.  
51. A Special Case of the Generalized Girard-Waring Formula, *Journal of Integer Sequences* 15(5), Article 12.5.7 (2012) MR2942751.  
52. On a trigonometrical sum, *Gazeta Matematica Seria B* Anul CXVII, Nr. 9, 380–384 (2012)
- 2013      53. Integer partitions and directed acyclic graphs (in romanian) *Gazeta Matematica Seria A*, Anul XXXI, Nr. 1-2, 15–23 (2013)  
54. An Asymptotic Formula of Cosine Power Sums (with Tanfer Tanriverdi) *Le Matematiche* 68(1), 131–136 (2013) MR3060854.  
55. A note on the determinat of a Toeplitz-Hessenberg matrix, *Special Matrices* 1, 10–16 (2013)
- 2014      56. An infinite family of inequalities involving cosecant sums, *Gazeta Matematica Seria A* 32(1-2), 7–10 (2014)  
57. A note on q-Stirling numbers, pp. 247–252, in G. V. Milanovic and M. Th. Rassias (Editors) *Analytic Number Theory, Approximation Theory and Special Functions*, Springer, New-York, 2014 MR3329239.
- 2017      58. On the arithmetic mean of the square roots of the first  $n$  positive integers, *The College Mathematics Journal*, 48(2), 129–133 (2017).

### Research Papers in Progress

59. Truncated Theta Series and a Problem of Guo and Zeng (with G. E. Andrews), <http://www.personal.psu.edu/gea1/pdf/325.pdf> (Under review at *Journal of Combinatorial Theory, Series A*)
60. Generating Special Arithmetic Functions by Lambert Series Factorizations (with Maxie D. Schmith), <https://arxiv.org/abs/1706.00393> (2017). (Under review at *Experimental Mathematics*)