

PUBLICATIONS of  
YURI MATIYASEVICH

(in reversed chronological order)

- [1] **Congruences for Apéry numbers**  $\beta_n = \sum_{k=0}^n \binom{n}{k}^2 \binom{n+k}{k}$ .  
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- [2] **Computational rediscovery of Ramanujan's tau numbers.**  
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- [3] **The Riemann Hypothesis in Computer Science.** *POMI Preprints*, 08/2018, 17 pages, page 16, 2018. <http://www.pdmi.ras.ru/preprint/2018/18-08.html>, DOI: 10.13140/RG.2.2.14041.83041, Submitted to *Theoretical Computer Science*.
- [4] **Plausible ways for calculating the Riemann zeta function via the Riemann–Siegel theta function.** *POMI Preprints*, 01/2018, 16 pages, 2018. <http://www.pdmi.ras.ru/preprint/2018/18-08.html>, DOI: 10.13140/RG.2.2.27026.30402, Submitted to *J. Number Theory*.
- [5] **Computational aspects of Hamburger's theorem.** *POMI Preprints*, 01/2018, 31 pages, 2018. <http://www.pdmi.ras.ru/preprint/2018/18-01.html>, DOI: 10.13140/RG.2.2.14495.46247, Accepted by *Fields Institute Communications* (ISSN 1069-5265).
- [6] **Гипотеза Римана как чётность биномиальных коэффициентов.** *Чебышевский сборник*, 19, 2018.
- [7] **Some observations on a function vanishing at the non-trivial zeroes of Riemann's zeta function.** *POMI Preprints*, 08/2017, 8 pages, 2017. <http://www.pdmi.ras.ru/preprint/2017/eng-2017.html>, DOI: 10.13140/RG.2.2.35466.98249.

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- [11] **Гипотеза Римана в терминах собственных чисел специальных ганкелевых матриц.** *Совр. пробл. матем.*, 23:87–101, 2016. English translation: **Riemann’s hypothesis in terms of the eigenvalues of special Hankel matrices.** *Proc. Steklov Inst. Math.*, 296:78–91, 2017. DOI: 10.4213/spm64.
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