

# Curriculum Vitae

**Name:** Dmitry Frolenkov

**Born:** 7 April 1989 in Moscow, Russia

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## Education and degrees:

- (2011-2013) Ph.D. studies, Department of Algebra and Number theory, Steklov Mathematical Institute, Moscow, Russia  
(28.11.2013) **Ph.D. in mathematics**, Department of Algebra and Number theory, Steklov Mathematical Institute, Moscow, Russia  
Dissertation: The mean value of Frobenius numbers, the length of Euclidean algorithms and Dirichlet characters.  
Advisor: prof. Ilya D. Shkredov.
- (2006-2011) Master's studies, Faculty of Mechanics and Mathematics, Lomonosov Moscow State University, Russia  
(2011) **Master's degree in mathematics**, Lomonosov Moscow State University, Faculty of Mechanics and Mathematics, Moscow, Russia  
Thesis: The mean value of Frobenius numbers with three arguments  
Advisor: prof. Nikolay G. Moshchevitin.

**Research visits:** (17.10.2012 —26.12.2012), (11.03.2013 —17.05.2013), (04.02.2014 —03.04.2014), (05.11.2014 —24.12.2014), (24.02.2015 —01.04.2015), (08.05.2015 —19.06.2015), (02.11.2015 —11.12.2015) and (15.02.2016 —15.04.2016) Institute of Applied Mathematics, Khabarovsk Division. Khabarovsk, Russia.

## Publications:

1. Balkanova O.G, Frolenkov D.A. Breaking the mollification barrier for the first moment of automorphic  $L$ -functions in weight aspect, submitted.
2. Balkanova O.G, Frolenkov D.A. Moments of  $L$ -functions and the Liouville-Green method, submitted.
3. Balkanova O.G, Frolenkov D.A. New error term for the fourth moment of automorphic  $L$ -functions, submitted.

4. Balkanova O.G, Frolenkov D.A. Non-vanishing of automorphic  $L$ -functions of prime power level, submitted.
5. Balkanova O.G, Frolenkov D.A. A uniform asymptotic formula for the second moment of primitive  $L$ -functions of prime power level. Tr. Mat. Inst. Steklova 2016, vol 294,pp.1-34.
6. Bykovskii V.A, Frolenkov D.A. On the mean value of the length of continued fractions with a fixed denominator. submitted.
7. Bykovskii V.A, Frolenkov D.A. Asymptotic formulas for the second moments of  $L$ -series of holomorphic cusp forms on the critical line. 28 pages, accepted to Izv.Math.
8. Bykovskii V.A, Frolenkov D.A. Asymptotic formula for the convolution of a generalized divisor function. Doklady Mathematics, 2015, vol. 92:3, pp. 670-673.
9. Frolenkov D.A. On the uniform bounds on hypergeometric function. Far eastern Math. J., 2015, vol. 15:2, pp. 288-298.
10. Bykovskii V.A, Frolenkov D.A. Some integral representations of hypergeometric function. Far eastern Math. J., 2015, vol. 15:1, pp. 38-40.
11. Bykovskii V.A, Frolenkov D.A. On the second moment of  $L$ -series of holomorphic cusp forms on the critical line. Doklady Mathematics, 2015, vol. 92:1, pp. 1-4.
12. Frolenkov D.A., Kan I.D. A strengthening of a theorem of Bourgain-Kontorovich II. Moscow J. of Com. and Num.Th, 4:1 (2014), 78-117
13. Frolenkov D.A., Kan I.D. A strengthening of a theorem of Bourgain-Kontorovich. Izv.Math., 78:2 (2014), 293-353.
14. Frolenkov D.A., Soundararajan K. A generalization of the Polya-Vinogradov inequality. Raman. J. 31:3 (2013), 271-279.
15. Frolenkov D.A. The mean value of Frobenius numbers with three arguments Izvestiya: Mathematics(2012),76(4):760-819.
16. Frolenkov D.A. Asymptotic behaviour of the first moment of the number of steps in the by-excess and by-deficiency Euclidean algorithms Sbornik: Mathematics(2012),203(2):288-305

17. Frolenkov D.A. A numerically explicit version of the Polya-Vinogradov inequality. *Moscow J. of Com. and Num.Th.*, 1:3 (2011), 26-42.

**Research interests:** analytic theory of automorphic forms and their L-functions,

**Conferences talks:**

- Conference to the Memory of Anatoly Alekseevitch Karatsuba on Number theory and Applications, Moscow, Russia, January 28-30, 2016 “A strengthening of Porter’s result”
- Yu.V. Linnik Centennial Conference Analytical methods in number theory, probability theory and mathematical statistics, St.Petersburg, Russia, 14.09.2015-18.09.2015. “A strengthening of Porter’s result”
- Moscow Workshop on Combinatorics and Number Theory, Moscow, Russia, 27.01.2014-02.02.2014. “On the Polya-Vinogradov inequality and its generalization”
- International conference Diophantine Analysis, Astrakhan, Russia 30.07.2012-03.08.2012 “On Zaremba conjecture and Bourgain-Kontorovich’s theorem.”
- Paul Turan Memorial Conference, Budapest, Hungary, 22.08.2011-26.08.2011 “On a problem of Dobrowolski-Williams and the Polya-Vinogradov inequality”
- Diophantine approximations: state of the art and applications, Minsk, Belarus, 3.07.2011-8.07.2011, “On a problem of Dobrowolski-Williams and the Polya-Vinogradov inequality”
- 27th Journées Arithmétiques, Vilnius, 27.06.2011-01.07.2011, “The mean value of Frobenius numbers with three arguments”

**Grants and scholarships:**

- (2014-2018) RSF grant 14-50-00005 (principle investigator Steklov Mathematical Institute)
- (2014-2016) RSF grant 14-11-00335 (principle investigator V.A. Bykovskii)
- (2014-2016) RFBR grant 14-01-00203A (principle investigator V.A. Bykovskii)

- (2014-2015) RFBR grant 14-01-90002 Bel\_a (principle investigator A.V. Ustinov)
- (2013-2015) Dynasty Foundation fellowship
- (2012-2013) RFBR grant 12-01-31165 (principle investigator M.A. Korolev)
- (2011-2013) RFBR grant 11-01-00759-a (principle investigator I.D. Shkredov)
- (2011-2013), Ph.D. scholarship at Steklov Mathematical Institute
- (2006-2011), Student scholarship at Lomonosov Moscow State University