

Stepan Lvovich Kuznetsov

Born on June 30, 1988; permanently lives in Moscow. Russian citizen.

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Primary Research Interest

mathematical logic: non-commutative substructural logics

Education and Degree

Candidate of Sciences (\approx *Ph. D.*) in Physics and Mathematics 2012
 Lomonosov Moscow State University, Faculty of Mathematics and Mechanics,
 thesis: “Categorical grammars based on variants of the Lambek calculus”
 supervisor: Prof. Mati Pentus
 official reviewers (opponents):
 Igor Lysenok, Dr. Sc. (Steklov Institute); Andrey Kudinov, C. Sc. (IITP RAS); Tver State University

Specialist Diploma (\approx *B. Sc. + M. Sc.*) *summa cum laude* in Mathematics 2009
 Lomonosov Moscow State University, Dept. of Mathematical Logic and Theory of Algorithms
 thesis: “Grammars based on two variants of the Lambek calculus,” supervisor: Prof. Mati Pentus

Primary Position

Steklov Mathematical Institute of the Russian Academy of Sciences,
senior scientific researcher, Dept. of Mathematical Logic since 2018
scientific researcher, *ibid.* 2013–2018

Secondary (Part-Time) Positions

Lomonosov Moscow State University,
assistant professor, Dept. of Mathematical Logic and Theory of Algorithms since 2012
 National Research University Higher School of Economics,
associate professor, School of Data Analysis and Artificial Intelligence since 2016
senior researcher, Intl. Lab. for Intelligent Systems and Structural Analysis since 2020
researcher, *ibid.* 2017–2019
 Center for Pedagogical Excellence,
analyst, Publishing Dept. (“Kvant” journal editorial) since 2016
 University of Pennsylvania,
visiting researcher, Dept. of Mathematics May 2018
lecturer B (visiting), *ibid.* January–May 2017
 Moscow Institute of Physics and Technology,
associate professor, Dept. of Algorithms and Programming Techniques 2012–2013
assistant professor, *ibid.* 2011–2012
 Secondary School No. 54 of Moscow,
teacher of mathematics and information technology 2007–2014

Selected Journal Articles

M. Kanovich, S. Kuznetsov, V. Nigam, A. Scedrov. Subexponentials in non-commutative linear logic. *Math. Struct. Comput. Sci.*, 29(8):1217–1249, 2019.

S. Kuznetsov, V. Lugovaya, A. Ryzhova. Craig’s trick and a non-sequential system for the Lambek calculus and its fragments. *Log. J. IGPL*, 27(3):252–266, 2019.

S. L. Kuznetsov. On translating Lambek grammars with one division into context-free grammars. *Proc. Steklov Inst. Math.*, 294:129–138, 2016.

S. L. Kuznetsov. Trivalent logics arising from L-models for the Lambek calculus with constants. *J. Appl. Non-Class. Log.*, 24(1–2):132–137, 2014.

S. Kuznetsov. Lambek grammars with one division and one primitive type. *Log. J. IGPL*, 20(1):207–221, 2012.

The complete up-to-date list of publications available at:

http://www.mathnet.ru/php/person.phtml?&personid=72238&option_lang=eng

Selected Conference Presentations

LICS 2019: S. Kuznetsov. The logic of action lattices is undecidable (published by IEEE)

IJCAR 2018: M. Kanovich, S. Kuznetsov, V. Nigam, A. Scedrov. A logical framework with commutative and non-commutative subexponentials (Springer LNAI vol. 10900)

AiML 2018: S. Kuznetsov. *-continuity vs. induction: divide and conquer (AiML series vol. 12)

FSCD 2017: M. Kanovich, S. Kuznetsov, G. Morrill, A. Scedrov. A polynomial time algorithm for the Lambek calculus with brackets of bounded order (LIPIcs vol. 84, Schloss Dagstuhl)

MoL 2017: S. Kuznetsov, A. Okhotin. Conjunctive categorial grammars (published in ACL Anthology)

LACL 2012: S. Kuznetsov. L-completeness of the Lambek calculus with the reversal operation (Springer LNCS vol. 7351)

PC membership: Formal Grammar 2017, 2018, 2019, 2020; Structures & Deduction 2019

Grants and Awards

MK 430.2019.1 (Research Grant Council of the President of Russia) 2019–2020
“Subexponential modalities in non-commutative linear logic” (P.I.)

Russian Young Mathematics Award (personal grant) 2018–2020

RSF – FWF 20-41-05002 (Russian Science Foundation and Austrian Science Fund) 2020–2022
“New concepts of formal proof and proof representations” (co-P.I.; P.I.’s: L. D. Beklemishev and M. Baaz)

RSF 16-11-10252 (Russian Science Foundation) 2016–2020
“Algorithmic problems in algebra and logic” (member of team; P.I.: L. D. Beklemishev)

RFBR 20-01-00435 (Russian Foundation for Basic Research) 2020–2022
“Algorithmic and model-theoretic properties of languages and subset structures” (member of team; P.I.: S. M. Dudakov)

RFBR 18-01-00822 (Russian Foundation for Basic Research) 2018–2020
“Investigations in mathematical logic and algorithms” (member of team; P.I.: S. I. Adian)

Projects finished before 2020: RSF 14-50-00005; RFBR 15-01-09218, 14-01-00127, 12-01-00888, 11-01-00281, 08-01-00399, 06-01-72555; NŠ 9091.2016.1, 1423.2014.1, 5593.2012.1; STCP-CH-RU (member of team).