

# Curriculum Vitae of Arina Voorhaar (Arkhipova)

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INFORMATION 119048 Moscow, Russia arina.voorhaar@gmail.com

EDUCATION **National Research University  
Higher School of Economics (NRU HSE),  
Moscow, Russia**

PhD student

- Advisor: Alexander Esterov

**Université de Genève (UniGe),  
Geneva, Switzerland**

MSc.in Mathematics, Summer 2017

**Master Class in Geometry, Topology and Physics**

- Thesis Topic: *“Topological Invariants of Projections and Newton Polytopes”*
- Advisors: Grigory Mikhalkin and Alexander Esterov

**National Research University  
Higher School of Economics (NRU HSE),  
Moscow, Russia**

B.Sc.(Hons) in Mathematics, Summer 2016

- Thesis Topic: *“Signs of The Leading Coefficients of The Resultant”*
- Advisor: Alexander Esterov

**High School #179 of MIOE, Moscow**

specialized in Mathematics,  
graduated summa cum laude, Summer 2012

RESEARCH INTERESTS Enumerative and combinatorial algebraic geometry, tropical and convex geometry, singularity theory, toric geometry and Newton polyhedra, elimination theory, knot invariants, tilings, symbolic dynamics.

POSITIONS HELD

- Research intern Mar 2016 — Jul 2016  
Laboratory of Algebraic Geometry and its Applications  
National Research University Higher School of Economics

PARTICIPATION IN CONFERENCES & SUMMER SCHOOLS	• GQT Graduate School and Colloquium – 2019 Den Dolder, the Netherlands	Jul 2019	
	• Helvetic Algebraic Geometry Seminar – 2019 Konolfingen, Switzerland	Jun 2019	
	• Winter School in Mathematical Physics – 2019 Les Diablerets, Switzerland	Jan 2019	
	• Higher Algebra and Mathematical Physics Bonn, Germany	Aug 2018	
	• 2nd Budapest Workshop on Characteristic Classes of Singularities Budapest, Hungary	Aug 2018	
	• CIME School <i>Geometric Representation Theory and Gauge Theory</i> Cetraro, Italy	Jun 2018	
	• Helvetic Algebraic Geometry Seminar – 2018 Konolfingen, Switzerland	Jun 2018	
	• Winter School in Mathematical Physics – 2018 Les Diablerets, Switzerland	Jan 2018	
	• Galois Meets Newton: Algebraic and Geometric aspects of Singularity Theory Weizmann Institute of Science, Rehovot, Israel	Jul 2017	
	• Women in Geometry and Topology ETH Zürich, Switzerland	Jun 2017	
	• Winter School in Mathematical Physics – 2017 Les Diablerets, Switzerland	Jan 2017	
	• Summer School on Algebra, Statistics and Combinatorics Aalto University, Helsinki, Finland	Jun-Jul 2016	
	• Transversal Aspects of Tilings island Oléron, France	May-Jun 2016	
	• Scuola Matematica Interuniversitaria, Perugia, Italy	Jul–Aug 2015	
	• Modern Mathematics International Summer School for Students (MoMISSS), Lyon, France	Aug 2014	
	• Summer school “Contemporary Mathematics”, Dubna, Russia	Jul 2014	
	• XIII school-conference in Maths and Physics, (HSE-ITEP(Moscow)-ITP(Kiev)), Dubna, Russia	May 2014	
	• Summer school “Contemporary Mathematics”, Dubna, Russia	Jul 2013	
	TEACHING EXPERIENCE	Teaching Assistant Course: “Introduction to Probability Theory” Instructor: Klimenko A.V. Department of Mathematics, NRU HSE	Fall 2015
		Teaching Assistant	Spring 2015

Course: “Introduction to Discrete Mathematics”  
Instructor: Feigin E.B.  
Department of Mathematics,  
NRU HSE

Teaching Assistant Fall 2014  
Course: “Dynamical Systems”  
Instructor: Esterov A.I.  
Department of Mathematics, NRU HSE

Teaching Assistant Fall 2013  
Course: “Logic and Algorithms”  
Instructors: Beklemishev L.D., Shehtman V.B.  
Department of Mathematics, NRU HSE

RESEARCH PROJECTS 2016-2017  
• NRU HSE 16-01-0069 (participant)  
“Algebro-geometric applications of invariants of lattice polytopes modulo a prime number”

PUBLICATIONS  
• (in collaboration with Alexander Esterov)  
*Signs of the Leading Coefficients of the Resultant*,  
Journal of Geometric and Functional Analysis GAFA, 2017.

SKILLS & QUALIFICATIONS  
*Programming Languages*  
• Python (working knowledge)  
• Mathematica (working knowledge)  
*Markup Languages*  
• LaTeX (working knowledge)  
*Language Skills*  
• Russian (native)  
• English (fluent)  
• French (fluent)  
• Italian (fair knowledge)  
• Dutch (basic)

PERSONAL DETAILS  
• date and place of birth: January 25, 1995,  
Moscow, Russian Federation  
• citizenship: Russian  
• marital status: married