Mikhail Goloshchapov

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Personal Website

Expected Graduation: Jul 2024

EDUCATION

Moscow Institute of Physics and Technology(MIPT)

Department: Landau Phystech School of Physics and Research

Major: Applied Mathematics and Physics

GPA: 4.95/5.00

WORK EXPERIENCE

MSU Quantum Technology Centre & Russian Quantum Center

Sep 2022 - Present

QOTLabs - Neutral Atom Quantum Computing

Optimised Raman excitation for single-qubit gates[1, 4]. Generated phase masks for SLM, stabilised lasers, worked with resonators. Currently modelling two-photon Rydberg excitation to improve two-qubit gates[2].

Russian Quantum Center - Summer internship

Jun-Aug 2022

Jan 2023

Laboratory of Ultracold Fermions

Assembled optical scheme for atomic beam spectroscopy and saturated absorption spectroscopy.

Optimised setup parameters for creating atomic beam of ⁶Li to increase number of atoms in Zeeman slower[3].

CONFERENCES AND PUBLICATIONS

1.	International Conference on Quantum Technologies 2023 - Poster	July 2023
	"Randomised Benchmarking of Single-Qubit Gates on a Neutral Atom Quantum Processor"	
2.	Conference Physics of Ultracold Atoms 2023 - Presentation	Dec 2023
	"Modelling of Two-Photon Rydberg Excitation of Single Atom in Optical Tweezers"	
3.	Abstracts on Conference on the Fundamentals of Physics of Ultracold Atoms and Ions,	May 2023
	"Measurement of 6Li Atomic Beam Properties"	
4.	Abstracts on the 65th Conference of Moscow Institute of Physics and Technology	Apr 2023
	"Modelling of single-qubit gates error on neutral atoms due to oscillations in optical tweezers"	
5.	Abstracts on the 65th Conference of Moscow Institute of Physics and Technology	Apr 2023
	"Framework for DOSY NMR Data Analysis"	
6.	Abstracts on the Conference Lomonosov-2023	Apr 2023
	"Saturated Absorption Spectroscopy of D2 Line of Rb Isotopes"	
4.10	WADDS AND SCHOLADSHIDS	

AWARDS AND SCHOLARSHIPS

Charitable Foundation for the Development of Innovation Education	Feb 2020 - Aug 2023	
o Scholarship for academic achievements		
Moscow Institute of Physics and Technology		
o Increased academic state scholarship for academic and scientific achievements	Sep 2023 - Present	
o Winner of competition of student works by Department of General Physics	Jan 2023	
o Winner of competition of student works by Department of General Physics	Jun 2023	
o Scholarship for academic excellence	Sep 2020 - Present	

WORKSHOPS AND TALKS

	Presented a talk on V-system interaction with classical electromagnetic fields.	•	
2.	MIPT Workshop "Computational Methods in Materials Science"		Sep 2023
	Lectures and seminars on computational methods in materials design		

Seminar of MIPT Theoretical Physics Department "Green's Functions and Nonlinear Systems"

PROJECTS

Domain structure of YiG thin films, Ising model and Magnetic memory	Jun 2023
o Observed domain structure in YiG thin films, investigated Ising model with Monte-Carlo	

o Project won competition of student works by MIPT Department of General Physics

Hackathon - Naumen IT company

Apr 2021

o Developed telegram bot to support Naumen interns, project scored 2nd place

MORE

o Software: Python, Julia, Wolfram Mathematica, Latex, C++, SolidWorks, Git