

## ANASTASIA LYULINA

✉ alyulina@stanford.edu

## EDUCATION

- 2020 – present      Stanford University  
Ph.D. Student in Ecology and Evolution  
Stanford, CA, United States
- 2013 – 2017      Saint Petersburg Polytechnic University  
B.Sc. in Physics  
Saint Petersburg, Russia
- 2016      Technical University of Munich  
Exchange Student  
Munich, Germany

## RESEARCH EXPERIENCE

- Sep 2020 – present      Stanford University  
Graduate Student  
Biology Department • **Supervisor: Dmitri A. Petrov**  
As a rotation student, I am working on inferring mean fitness from lineage tracking experiments in barcoded yeast populations.  
Stanford, CA, United States
- 2017 – 2020      Institute of Science and Technology Austria  
Research Assistant  
Evolutionary Genomics Group • **Supervisor: Fyodor A. Kondrashov**  
I studied how changes in genotype affect phenotypes, and how genetic interactions shape evolutionary trajectories. My main project investigated the genetic variation in a nearly extinct bird species. I used mathematical modelling, machine learning, and extensive data analysis.  
Klosterneuburg, Austria
- Feb – Jul 2019      Harvard University  
Visiting Postgraduate Research Fellow  
Department of Systems Biology • **Supervisor: Johan Paulsson**  
I worked on improving fluorescent proteins by designing and screening mutant libraries.  
I did cloning, mutagenesis, and microfluidics.  
Cambridge, MA, United States
- Jul – Aug 2017      University of Calgary  
Visiting Undergraduate Student  
Centre for Molecular Simulation • **Supervisor: D. Peter Tieleman**  
I studied how P-glycoprotein interacts with lipids and transports drug molecules across cell membrane with coarse-grained molecular dynamics simulations.  
Calgary, AB, Canada
- 2016 – 2017,  
2012 – 2014      Institute of Macromolecular Compounds of the Russian Academy of Sciences  
Undergraduate Student  
Laboratory of Theory and Simulation of Polymer Systems • **Supervisor: Andrey A. Gurtovenko**  
I performed atomic-scale molecular dynamics simulations of polymer systems.  
Saint Petersburg, Russia

## TEACHING EXPERIENCE

- Aug 2018, Aug 2016, Aug 2015, Aug 2014  
 School of Molecular and Theoretical Biology  
 Supervised selected high school students working on research projects in biological physics, molecular evolution, and evolutionary genomics.  
 In 2018, developed and taught a two-week-long course on data visualization (in English).  
 Adam Mickiewicz University, Poznań, Poland  
 Centre for Genomic Regulation, Barcelona, Spain  
 Institute of Protein Research, Pushchino, Russia
- 2016 – 2017  
 Private math and physics tutor to high school students  
 Worked one-on-one with students interested in out-of-school mathematics and physics.  
 Saint Petersburg, Russia
- Jul – Aug 2015, Jul – Aug 2014, Jul – Aug 2013  
 Physics Olympiad Summer Training Program  
 Assisted with and later taught three-week-long courses in classical mechanics and calculus for a selected group of high school students (in Russian).  
 Leningrad Region, Russia  
 Sochi, Russia

## GRANTS AND FELLOWSHIPS

- 2020  
 Gruber Science Fellowship at Yale (declined)
- 2017  
 Zimin Foundation Summer Research Fellowship
- 2015 – 2017  
 Saint Petersburg Polytechnic University Academic Stipend
- 2015  
 Russian Academic Excellence Project Travel Grant
- 2012 – 2013  
 Siemens Academic Stipend

## PUBLICATIONS

- 2014  
 Gurtovenko A. A., Lyulina A. S. *Electroporation of asymmetric phospholipid membranes. Journal of Physical Chemistry B* 118 (33): 9909–9918, 2014. doi: 10.1021/jp5028355.

## SELECTED PRESENTATIONS AND INVITED TALKS

- 2019  
 EvolVienna Meeting  
*Population Genetics of the Spoon-billed Sandpiper*  
 Nov 26, Vienna, Austria
- Harvard Quantitative Biology Symposium  
*Population Genetics of the Spoon-billed Sandpiper*  
 May 23, Cambridge, MA, USA
- 2018  
 The Graduate University for Advanced Studies  
*Predicting Effects of Amino Acid Substitutions*  
 July 17, Hayama, Japan
- 2017  
 Centre for Molecular Simulation at the University of Calgary  
*P-gp Drug-Uptake: A Coarse-Grained Molecular Dynamics Study*  
 August 16, Calgary, AB, Canada
- 2014  
 8th International IUPAC Symposium Molecular Mobility and Order in Polymer Systems  
*Electroporation of Asymmetric Phospholipid Membranes: Insight from Atomic-Scale Molecular Dynamics Simulations*. Gurtovenko A.A., Lyulina A.S. ISBN 978-5-98340-329-1  
 June 4–6, Saint Petersburg, Russia

## PROFESSIONAL SERVICE

- 2018, 2019      Reviewer for the *Journal of Theoretical Biology*
- 2015 – 2017      Board Member of the School of Molecular and Theoretical Biology Alumni Association  
 Participated in writing a constitution for the Alumni Association;  
 mentored younger students through the Alumni Association mentoring program;  
 organized talks and lectures for members of the Alumni Association located in Saint Petersburg  
 and run a biweekly journal club.

## ADDITIONAL COURSES

- Jul – Aug 2018      Okinawa Institute of Science and Technology Computational Neuroscience Course  
 Okinawa, Japan

## HOBBIES

I do street photography, yoga, love hiking and occasionally playing music.

- 2013 – 2015      Saint Petersburg Union of Journalists Photography School  
 Professional Diploma in Photojournalism  
 Saint Petersburg, Russia

## REFEREES

Fyodor Kondrashov

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 Am Campus 1,  
 3400 Klosterneuburg, Austria  
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Andrey Gurtovenko

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Peter Tieleman

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