

# Narguess Alizade



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No. 15, Koohsar 3rd St, Alborz Ave., Simon Blvd., Tehran, Iran

**Physics BSc. Student at Department of Physics, Shahid Beheshti University (SBU), Tehran, Iran**

## Education

2018 – 2022 **Bachelor of Physics**, *Shahid Beheshti University (SBU)*, Tehran, Iran  
Statistical Mechanics II(4/4) - Solid State Physics Lab(4/4) - Biophysics(4/4), Complex Systems(4/4)  
2012 – 2018 **Diploma of Mathematics**, *National Organization for Development of Exceptional Talents (Sampad)*, Sari, Iran

## Publications

> *Published* : Narges Alizade, Aria Bozorgmehr, "A New Approach to the Equations of Free Fall Motion", Published Online on "Fundamental Journal of Mathematical Physics", 2016 .

**Research interests** : Biophysics - Soft Condensed Matter - Data Science - Machine Learning - Evolution

## Selected Projects

May 2022 – **Breast Cancer Diagnosis, CNNs, Thermal Image,**  
> Supervisor : *Dr. Samaneh Shojaeilangari*, Iranian Research Organization for Science and Technology  
> Analysis of breast thermal images using Deep Learning  
> Classification and prediction of healthy or sick  
Cancer Image Analysis Deep Learning

Jul – Dec 2021 **Cell Mechanical Features and Metastasis, Python, ML,**  
> Supervisor : *Dr. A. Allahverdi*, Tarbiat Modares University, Tehran Iran  
> Analysis of fluorescent images of cells to extract mechanical features  
> Identify metastatic cells using extracted mechanical features  
CellMechanics Metastasis DeepLearning ImageAnalysis

Oct - Dec 2020 **Ising Model, Statistical Mechanics, Python,**  
> Supervisor : *Prof. G. R. Jafari*, Shahid Beheshti University, Tehran Iran  
> Simulation of Ising model for a 2-D Lattice  
Statistical Mechanics Python NumPy Matplotlib

## Skills

Programming & Computer :

> Python (NumPy, Matplotlib, Pandas, SciPy, OS, NetworkX) >  $\text{\LaTeX}$  (Intermediate)  
> Machine Learning (TensorFlow, Keras) > Gephi (Elementary)  
> Matlab (Intermediate) > Mathematica (Elementary)  
> Bash Scripting (Intermediate)

Languages :

> English (Fluent) > Arabic (Intermediate) > Persian (Native)  
> French (Intermediate) > German (Novice) > Latin (Novice)

## Teaching Experiences

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- Feb 2022 - Present **Solid State Physics I (TA)**, *Dr. T. VazifehShenas, Department of Physics, SBU.*
- Oct 2021 **School for Statistical Analysis of Cosmic Fields(Coding Sessions TA)** , *Department of Physics, SBU.*
- Fall of 2020 **General Physics I (TA)**, *Dr. A.Sadeghi, Department of Physics, SBU.*
- Winter of 2020 **General Physics II (TA)**, *Dr. A. Sadeghi, Department of Physics, SBU.*
- Jul2018 - present **High School Physics and Mathematics Teacher**, Self Employment and Farzanegan High-School, Sari, Iran

## Honors & Awards

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- 2019-2021 **Appreciated by the Presidents of SBU Physics Department (Dr. Riazi and Dr. Sadeghi) for Volunteer Activities.**
- Fall of 2018 **Received a full BSc. Program Scholarship from Shahid Beheshti University(SBU)** , Tehran, Iran
- Fall of 2018 **Ranked in top 0.2% Nationwide University Entrance Examination.** Ranked 448 among 300000 participants.
- Fall of 2017 **The 4th-place winner in The Khwarizmi Festival For a Project in Mechanics Division.** Young Scholars Club.

## Attendance & Workshops

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- Apr-May 2022 **Computation in Complex Systems**, Cris Moore, Santa Fe Institute
- Feb-Mar 2022 **Finding Hidden Messages in DNA (Bioinformatics I)**, Coursera, Pavel Pevzner, University of California-San Diego
- Feb 2022 **Iranian Conference on Bioinformatics**, Kish Island, Iran
- Dec 2021 **ICTP-ICTS Winter School On Quantitative Systems Biology**, ICTS
- Sep 2021 **Three-Day School of Introduction to CERN Activities**, Isfahan University of Technology , Tehran, Iran
- Aug – Oct 2021 **Biophysics** (University Course), Mohammad Reza Ejtehadi , Sharif University of Technology, Tehran, Iran
- Oct 2021 **The Annual Physics Conference of Iran** , Physics Society of Iran(PSI), Isfahan University of Technology
- Sep 2021 **Sociophysics School**, Sharif University of Technology, Tehran, Iran
- Apr – Jun 2021 **Spring School for Advanced Python and Machine Learning** , *Department of Physics, SBU*
- Jul – Sep 2020 **Introduction to Biological Evolution** (Summer school), *Maryam Sadraie, Sharif University of Technology, Tehran, Iran*

## Community & Volunteer Activities

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- May 2022 **Complex Networks Workshop**  
Executive Committee Member
- Sep – Nov 2021 **Two Days With Particle Physics Workshop**  
Executive Committee Member
- 2018 – 2021 **Scientific Association of Physics Students**, SBU  
Organizing events like seminars, workshops, students activities, promotional programs, etc.  
Responsibilities :  
> Secretary of The Association, 2019-2021
- 2018 – 2021 **Physics Café**, Weekly Gatherings  
A scientific gathering program in the physics department, SBU which professors and students could speak and discuss scientific topics. I was one of the originators and organizers.
- 2018 – 2019 **Physics Day**, Annual open-day program of physics department, SBU.  
One of the outreach programs of the department that students was leading and operating that. I was in the organizer team for two years before pandemic.

## Hobbies

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- > Travelling & Hiking
- > Theater and Acting.
- > Reading Novels, Poems and Philosophy.
- > Cycling

## References

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### **Prof. Reza Jafari**

Profssor, Department of Physics, Shahid Beheshti University, Tehran, Iran

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✉ [gjafari@gmail.com](mailto:gjafari@gmail.com)

### **Prof. Dr. Taraneh Vazifehshenas**

Associate Professor, Physics Department, SBU, Tehran, Iran

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### **Prof. Dr. Shehu Abdussalam**

Associate Professor, Physics Department, SBU, Tehran, Iran

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### **Dr. Abdollah Allahverdi**

Assistant Professor, Department of Biological Sciences,  
Tarbiat Modares University, Tehran, Iran

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