



BAHAR ÖZTÜRK

Bilkent University, 06800,
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EDUCATION



Bilkent University, Ankara, Turkey,
Bachelor Science, Physics Department, Currently

CGPA: 3.49/4.00

ACHIEVEMENTS SCHOLARSHIPS

- Comprehensive Scholarship at Bilkent University 2019-present
granted to students who were admitted into the university with
an exceptional degree
- National Undergraduate Scholarship Program 2019-present
by TÜBİTAK (2205) granted to undergraduate students in natural sciences
- Ranked 2445th in Nationwide University Entrance Exam (YKS) 2019
among 2 million high school students
- High Honour student at PEV Science Highschool all semesters

RESEARCH EXPERIENCE



unam excellence in
science and
technology

Undergraduate Researcher

ECOS Lab, UNAM, Turkey

Advisor: Assoc. Prof. Hasan Yılmaz

2021

ECOS Lab at National Nanotechnology Research Center mainly focuses on emergent complex optical systems. I developed a program on MatLab using transmission matrix methods and Fourier transform to adapt optical elements in a system. I worked on a wavefront shaping project with diffractive objects involved.



Research Intern

IQOQI, University of Vienna, Austria

Aspelmeyer Group

Summer 2022

I simulated the propagation of a gaussian beam in the setup to compare my results with the experimental setup consisting of an optical path going through an objective that focuses the beam on a levitated superconducting sphere in a magnetic trap. I designed a program in Python using transfer matrices to simulate the propagation through the optical system which includes a mirror galvanometer that I adopted to the experiment setup. I was present at the lab to help improving the main setup along with my computational work.

COMPUTER SKILLS

Python, MatLab, L^AT_EX, Wolfram Mathematica
Familiarity with the Linux environment and shellcoding

PROJECTS

Poisson's Spot Experiment

PHYS-212 Modern Physics Term Project

spring 2020

Thermal Diffusivity

PHYS-211 Waves, Optics and Thermodynamics

Best Term Project Award

fall 2021

Elliptic Curve Cryptography

MATH-123 Abstract Maths Term Project

fall 2021

Quantum Computation and Shor's Algorithm

PHYS-371 Numerical Methods Term Project

fall 2022

VOLUNTEERING ACTIVITY

⟨ QSB | Bilkent ⟩



QSB Bilkent

president

QSB Bilkent is a student branch of QTurkey/QWorld, a global communication and collaboration network in quantum technologies and quantum computation.

Bilkent Animal Aid Society

active member

LANGUAGES

Turkish: Native

English: Advanced

German: Beginner