

# Milad Sharbafiun

[m.sharbafiun@gmail.com](mailto:m.sharbafiun@gmail.com)

Gender : Male  
Date of Birth : 22.05.1994  
Nationality : Iranian

Place of Birth : Isfahan, Iran  
Phone : (+98)9132703152  
Skype : [milad sharbaf](#)

## Education

- 2016-18      **Master of Science**, Condensed Matter Physics, University of Isfahan  
Thesis : *Study of the effect of disorder on the quantum transport of Phosphorene Nanoribbons*  
Supervisor : Dr. Mohsen Amini
- 2012-16      **Bachelor of Science**, Solid State of Physics, Qom University of Technology  
Project : *Band Structure of Photonic Crystals*  
Advisor : Dr. Mehdi Soleimani

## Languages

**Persian**, Native Language  
**English**, Excellent

## Teaching Experience

- 2017-Present      **Teaching Assistant**, Basic Physics I  
Basic Physics II  
Quantum Mechanics I

## Professional Training

- 2018      IPM (Institute for Research in Fundamental Sciences),  
Subject: *New Advanced Materials*  
Description : Advanced school on recent progress in condensed matter physics is planned by and held at the school of Nano Sciences.
- 2018      Isfahan University of Technology (IUT)  
*Iranian-Swiss Joint Research Collaboration Workshop*
- 2017      Pars Optics Department ,Tehran (Iran)  
*Simulation of Photonic Crystals*

## Publications

### *Journal Papers in Review*

- 2019      “*Vacancy-induced Fano resonances in zigzag phosphorene nanoribbons*”  
M. Amini, M. Soltani, M. Sharbafiun  
**Physical Review B** 99,085403 – Published 5 February 2019  
<https://doi.org/10.1103/PhysRevB.99.085403>
- 2019      “*Two-impurity-entanglement generation by electron scattering in zigzag Phosphorene nanoribbons*”  
M. Amini, M. Soltani, E. Ghanbari-Adivi, M. Sharbafiun  
**Quantum Information Processing**  
<https://doi.org/10.1007/s11128-018-2170-9>
- 2019      “*Tunable transmission due to defects in zigzag phosphorene nanoribbons*”  
M. Amini, M. Soltani, E. Ghanbari-Adivi, M. Sharbafiun  
**EPL (Europhysics Letters)** 125 (6), 67001  
<http://doi.org/10.1209/0295-5075/125/67001>

### *Conference Papers*

- 2017      “*The effect of vacancy disorder on the conductance of both topological and chiral edge states of zigzag phosphorene nanoribbon*”  
M. Sharbafiun ,M. Amini  
**Iranian Conference on Physics 2017**

## Computer Skills

### **Programming**

Python , Fortran , Matlab , C++ , Mathematica , HTML , CSS

### **Applications**

Pycharm , Photoshop , Xcrysden , Lumerical , Matlab

### **Platforms**

Linux , Windows

## Memberships

- 2019-Present      **Member** of the Iran’s National Elite Foundation (INEF)  
2017-Present      **Member** of the Physics Society of Iran

## Other

### **Interests and Hobbies**

- Designing website
- Basketball
- Reading
- Photography