



# Mohammad Afkani

Physics Student

- 9 December 1996
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## About me

I'm a physics student highly enthused about the Universe.  
The deep nanoworld engages my curiosity, the way it affects human being and vice-versa.

## Coding

- GNU/Linux & Bash & Git
- C & Python
- L<sup>A</sup>T<sub>E</sub>X & Microsoft Office

WordPress & HTML/CSS/JS

## Softwares

- Quantum ESPRESSO
- WIEN2k
- BoltzTrap2
- XCrySDen & VESTA

## Languages

- English (Advance)
- Persian (Native)
- German (Basic)

## Interests

Condensed matter physics, Nano physics, Computational physics, Open-source projects, Linux, Machine learning.

## Education

- 2020 B.Sc. Solid-State Physics Kharazmi University  
Fully Funded Scholarship, GPA<sup>†</sup>: 2.1
- 2015 Diploma Mathematics and Physics. Dehkhoda High School  
Fully Funded Scholarship, GPA<sup>†</sup>: 1.5

## Publications

- 2020 Bulk and surface DFT investigations of the electronic and magnetic properties of CsXNO (X = Mg, Ca and Sr) quaternary Heusler alloys (accepted) Materials Chemistry and Physics
- 2020 Inflation: Are latest detected events of gravitational waves in favor of string theory? arXiv:2003.00450
- 2019 Investigation of the electronic and thermoelectric properties of GeS monolayer (NCWNN) conference
- 2019 Electronic and elastic properties of the full Heusler structure Zr<sub>2</sub>RhAl.(14th Conference on Condensed Matter) conference
- 2018 Investigation of the structural, electronic and magnetic properties of silicon carbide monolayer coated with manganese using density function theory.(The Annual Physics Conference Of Iran) conference
- 2018 Electronic and optical properties of Penta-BP<sub>5</sub> monolayer.(The 7th International Congress on Nanoscience) conference

## Memberships

- 2017-2019 The Physics society of Iran

## Activities

- 2017-2020 Volunteer Librarian; Faculty of Physics, Kharazmi University
- 2020 Teaching assistant; Fundamentals of Physics II
- 2018 Teaching assistant; Analytical Physics II
- 2018 Running online education system; Crystallography courses
- 2017 Multi computers clustering; Computational Physics Lab, Faculty of Physics, Kharazmi University
- 2016 Running library management system(KOHA); Faculty of Physics, Kharazmi University

## Experience

- 2020 Physics School IASBS  
25th Physics School at The institute for advanced studies in basic sciences
- 2019 Executive director Faculty of Physics  
Yaldā's night party
- 2018 Workshop Tehran University  
2nd Workshop on Machine Learning in Physics: Applications in Condensed Matter Physics
- 2018 Lecture Faculty of Physics  
Ubuntu 18.04 LTS release party
- 2017 Presentation Startup weekend  
The first startup weekend in Karaj

<sup>†</sup> Germany grading scale: Modified Bavarian formula