Mohamed Aouane

Ph.D Candidate in Physics

Personal information

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Age: 26

Links: (LinkedIn) (Twitter)

About me

An enthusiast physicist looking at different ways of seeking new knowledge and participate in exciting fundamental research. My current project fits the bill perfectly. I've shown myself self-motivated when wanting to achieve my goals, come hell or high water. Staunch refusal to go skiing despite being surrounded by mountains.

Language

English: Fluent

French: Fluent

Arabic: Mother tongue

Summary

Currently working (and having fun) with neutrons at the Institut Laue-Langevin in Grenoble, trying to understand the quantum dynamics of small atoms and molecules trapped inside fullerene cages and to see their transitions and describe these non-bonded interactions between the guest atom/molecule and the cage itself. All of this is of interest both from a fundamental point of view and for the molecular spectroscopy field among others.

Work experience - Projects

ILL - Grenoble, FR — October 2019 - Currently

Young Researcher

Project: Inelastic neutron scattering of endofullerenes
Study of noble gases endohedral fullerenes (NG@C60) via inelastic neutron scattering and DFT simulations to study its quantum dynamics and transitions.

CBM - CNRS Orléans, FR — March 2019 - August 2019

M.Sc. Trainee

Project: Study of enzyme kinetics in a nonequilibrium setting:
Using stochastic methods and simulations, we try establishing a theoretical expression for an enhanced diffusion coefficient observed experimentally and run simulations for enzyme kinetics.

GREMI - CNRS Orléans, FR — January 2019 - March 2019

M.Sc. Trainee

Project: Using a Langmuir probe to characterize a radio-frequency plasma:
Characterizing an argon RF plasma in order to determine experimentally and under vacuum its physical properties (Electron Temperature and Electron Energy Density Function mainly) and comparing EEDF results with theoretical functions under different pressure and power settings.

Education

Université Grenoble Alpes — October 2019 - Currently

PhD in Physics

Thesis title: Inelastic neutron scattering of endofullerenes

University of Orléans — Sep. 2018 - Aug. 2019

Master Degree in physics

Obtained a grant to be able to finish my M.Sc Degree in France at the University of Orléans

Mohammed V University — Sep. 2017 - June 2018

Master Degree in Computational Physics

Mohammed V University — Sep. 2012 - June 2016

Bachelor Degree in Physics

Presentations

Colloquium held at the University of Orléans
March 2019

Presentation of the results of the internship at the GREMI laboratory

ILL PhD Seminars
April 2020

Presentation over Zoom of first year PhD results to different ILL scientists and students

Carb-ON conference
November 2020

Presentation of new experimental results at the Carb-ON conference organised by the SFEC (Société Française d'étude des Carbones)

Skills

Python - Data Analysis DFT Methods
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Quick Fire Round

Sport: Hiking
Music: Guitarist (Perfectly out of tune 9 times out of 10)
Social: PhD Social Officer at ILL (2020-2021 season)