



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 6322_____

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at Dipartimento di Physics

Scientist- _____ in _____ - _____ charge:
Marco Genoni _____

[Name and surname] Safoura Mirkhalaf

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Mirkhalaf
Name	Safoura

PRESENT OCCUPATION

Appointment	Structure
postdoct	University of Warsaw

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree			
Specialization			
PhD	Atomic, molecular and photonics	Firenze, LENS	2016
Master	Atomic and molecular	Iran, Esfahan	
Degree of medical specialization			
Degree of European specialization			
Other			



REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date registration	of	Association	City

FOREIGN LANGUAGES

Languages	level of knowledge
English, Italian	Toefl 92, B2

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
Aahus Denmark	Predocctoral scholarship 2011, for 10 months
Italy, florence	2011/2016 malicia project for phd studies

TRAINING OR RESEARCH ACTIVITY

description of activity
<ul style="list-style-type: none">• Center of new technologies (CENT), University of Warsaw, Poland, postdoc (2022-2024)• Researcher, Institute of Institute for Research in Fundamental Sciences (2021-2022)• University of Tehran, Iran- Postdoc (2021-22)• Institute of Physics, Polish Academy of Sciences, Warsaw, Poland as adjunkt (post-doc) (2018-2020)• Researcher, Institute of Institute for Research in Fundamental Sciences (2017-2018)• LENS, reserch scholar, pre-PhD research period 2012• Lecturer , University of Shahrekord, Iran 2011

PROJECT ACTIVITY

Year	Project

PATENTS

Patent



CONGRESSES AND SEMINARS

Date	Title	Place
<ul style="list-style-type: none">▪ Poster Presentation, Quantum Metrology and Physics beyond the Standard Model, Hannover, Germany, June 2019.▪ Poster Presentation, 13th European Conference on Atoms, Molecules and Photons, Florence, Italy April 2019. □▪ Poster Presentation, International Iran Conference on Quantum Information April 2018 .▪ Oral Presentation, The Autumn Meeting of the Physics Society of Iran, Tehran, Nov 2017. □▪		

PUBLICATIONS

<ul style="list-style-type: none">• <u>Safoura Mirkhalaf</u>, Janek Kolodynsky, Klaus Molmer, <i>Continuously measured quantum Gaussian metrology in open system</i>, going to submit soon to PRJ or Quantum soon (2023)• <u>Safoura Mirkhalaf</u>, Mohammad Mehboudi, Saleh Rahimi,, <i>Operational significance of nonclassicality in nonequilibrium Gaussian quantum thermometry</i>, arxiv: :2207.10742, Accepted for New Journal of Physics (2024).• <i>Critical quantum thermometry and its feasibility in spin systems</i>, Enes Aybar, Artur Niezgod, Safoura S Mirkhalaf, Morgan W Mitchell, Daniel Benedicto Orenes, Emilia Witkowska, volume 6, page 808 (2022).• <u>S. Mirkhalaf</u>, DB Orenes, MW Mitchell, E Witkowska, <i>Criticality-enhanced quantum sensing in ferromagnetic Bose-Einstein condensates: role of readout measurement and detection noise</i>, Physical Review A 103 (2), 023317 (2021).• A Niezgod, E Witkowska, <u>S Mirkhalaf</u>, <i>Twist-and-store entanglement in bimodal and spin-1 Bose-Einstein condensates</i>, Physical Review A 102 (5), 053315 (2020).• <u>S. Mirkhalaf</u>, L. Lepori, E. Witkowska, <i>Supersensitive quantum sensor based on criticality in an antiferromagnetic spinor condensate</i>, Phys. Rev. A 101, 043609 (2020).• <u>S. Mirkhalaf</u>, S. Nolan, S. Haine, <i>Robustifying twist-and-turn entanglement with interaction-based readout</i> Phys. Rev. A 97 (2018). <u>Editors suggestion</u>.• <u>Safoura Mirkhalaf</u> and Augusto Smerzi, <i>“Entanglement detection via quantum Fisher information in a coupled atom-field system”</i>, Phys. Rev. A 95, 022302 (2017).• <u>Safoura Mirkhalaf</u> and Klaus Mølmer, <i>“Sympathetic Wigner function tomography of a dark trapped ion”</i> Phys. Rev. A 85, 042109 (2012).• <u>Safoura Mirkhalaf</u> and M. Soltanolkotabi, <i>“A theoretical scheme for relative position localization of two non-interacting identical atoms via Ramsey interferometry inside cavity”</i> The Annual Conference of Physics, Kashan, Iran, (Summer 2008).



Articles in reviews
•

Congress proceedings
[title, structure, place, year]
[title, structure, place, year]
[title, structure, place, year]

OTHER INFORMATION

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Please note that CV WILL BE PUBLISHED on the University website and It is recommended that personal and sensitive data should not be included. This template is realized to satisfy the need of publication without personal and sensitive data.

Please DO NOT SIGN this form.

Place and date: Safoura Mirkhalaf 30/1/2024 _____, _____