

In the name of ALLAH

## Personal Information

First name: Rouhollah  
Surname: Haji Abdolvahab  
Gender: Male  
Place of birth: Tehran, Iran.  
Date of birth: 11/11/1980 (20/Abaan/1359).  
Nationality: Iranian.  
Marital status: Married.



## Address

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## Jobs and Positions:

### Assistant Professor (2012\_September-Present)

Department of physics, Iran University of Science and Technology

### Visitor

[Soft condensed matter group](#) in Sharif University of Technology (2012: February-September)

## Post-Secondary Education:

### PhD. degree

Soft Condensed Matter Physics

Title of my PhD project:

*"Study of small molecules and polymers translocation through biological single nanopores and analyzing the characteristics of ion currents through it."*

[Sharif University of Technology](#), Tehran, Iran (2012; February).

Supervisor: Dr. [Mohammad Reza Ejtehad](#) and Dr. [Hamid Mobasher](#)

## **Master of Science**

Theoretical and computational Biophysics

Title of my M.Sc. project:

*“Translocation of Polymer Chain through Nanopore Driven by binding Particles Using Master Equation”*

[Sharif University of Technology](#), Tehran, Iran (2006).

Supervisor: Dr. [Mohammad Reza Rahimitabar](#)

## **Bachelor of Science**

Physics

[Sharif University of Technology](#), Tehran, Iran (2004).

## **Diploma in Physics-Mathematics**

Shahid Mofatteh High-school, Tehran, Iran (1998)

## **Research Interests:**

Soft Condensed Matter Physics

Biophysics

Statistical Mechanics

Data Analysis

## **Awards & Honors**

Ranked 9th in National Physics Graduate Exam (2004)

## **Teaching Experiences**

[TA in Biophysics](#)

[TA in general physics 1](#)

[TA in general physics 2](#)

[Basic Physics 1](#)

[Basic Physics 2](#)

[Thermodynamics](#)

## Talks, Seminars, Conferences and workshops

### In Iran:

1. Soft Condensed Matter Group, Sharif University of Technology, Tehran, Iran  
Title: “*Sequence dependence of translocation time of polymer through a nanopore.*”  
[Abstract](#)  
Date: 03.03.2007
2. Soft Condensed Matter Group, Sharif University of Technology, Tehran, Iran  
Title: “*Bubble Breathing Dynamics in a Heteropolymer DNA.*”  
[Abstract](#)  
Date: 19.05.2007
3. Soft Condensed Matter Group, Sharif University of Technology, Tehran, Iran  
Title: “*Investigate and analysis of ionic current translocation through OmpF channel.*”  
[Abstract](#)  
Date: 16.02.2008
4. Nano-Technology 4<sup>th</sup> Student Conference, Kermanshah, Iran  
Title: “*بررسی عبور زنجیره پلیمری از درون نانوحفره با استفاده از معادله مادر.*”  
Date: 9-11.10.2008 (87 مهر 17-19)
5. Soft Condensed Matter Group, Sharif University of Technology, Tehran, Iran  
Title: “*Noise Analysis in Studies of Biological Membrane Ion Channels.*”  
[Abstract](#)  
Date: 15.11.2008
6. Soft Condensed Matter Group, Sharif University of Technology, Tehran, Iran  
Title: “*A review of Berezhkovskii and Bezrukov works on : Direction Invariance of the Translocation Time Distribution & Fluctuation Theorem for Membrane Transport.*”  
[Abstract](#)  
Date: 25.04.2009
7. Soft Condensed Matter Group, Sharif University of Technology, Tehran, Iran  
Title: “*Sequence-dependence of passage times for chaperone-driven polymer translocation.*”  
[Abstract](#)  
Date: 04.12.2010
8. Mini Workshop on “*Biological physics*”, Sharif University of Technology, Tehran, Iran  
Title: “*Sequence Dependence of Time distributions for Chaperone-Driven Polymer Translocation*”  
Date: 24.12.2011
9. 11<sup>th</sup> Condensed Matter Conference of “*Iran Physics Society*”, Shahrood University of Technology, Shahrood, Iran  
Title: “*Regime of the polymers translocating through Nanopore using binding particles*”  
Date: 27.01.2013

**Abroad:**

1. Condensed Matter Theory Group KOMET 331, University of Gutenberg, Mainz, Germany

Title: "*Sequence Dependence of Passage Times for Chaperone-Assisted Polymer Translocation through a Nanopore*"

Date: 19.10.2010

2. International Workshop on "Noise in Non-Equilibrium Systems: From Physics to Biology", at the Max Planck Institute for the Physics of Complex Systems in Dresden.

Title of poster: "*Sequence Dependence of Passage Times for Chaperone-Assisted Polymer Translocation*"

Date: April 11 to 14, 2011.

**Visits**

1. Complex Bio Materials Group, Physics Department, Technical University of Munich, Munich, Germany

Date: 1 May 2010, 29 October 2010

## Publications

1. *“Analytical and numerical studies of sequence dependence of passage times for translocation of heterobiopolymers through nanopores”*

R .H .Abdolvahab, Farinaz Roshani, Armita Nourmohammad, Muhammad Sahimi, and M .Reza Rahimi Tabar

Journal of Chemical Physics

Published online 18 December 2008

2. *“Sequence-dependence of the binding energy in chaperone-driven polymer translocation through a nanopore”*

Rouhollah Haji Abdolvahab, Mohammad Reza Ejtehad, Ralf Metzler

Physical Review E

Published online 10 January 2011

3. *“Analyzing the first passage time distribution of chaperone driven polymer translocation through a nanopore”*

Rouhollah Haji Abdolvahab, Ralf Metzler, Mohammad Reza Ejtehad

J. Chem. Phys.

Published online 23 December 2011

4. *“OmpF as a probe to sense nucleotides”*

Rouhollah Haji Abdolvahab, Mohammad Reza Ejtehad, Hamid Mobasheri

To be published.