

# Curriculum Vitae

## PERSONAL DETAILS

Name: Saeed Ahmad

DOB: 17th of July 1992

Citizenship: Indian

Marital Status: Married

Languages: English, Hindi, Urdu, Arabic

Present Address: Department of Physics and Astronomy, University of California  
Riverside(UCR), California 92521, USA

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## EDUCATION

**Ph.D.** 2017-2022, IIT Bombay,  
CPI—9.33 (in 10) in coursework.

Thesis title: “First Passage in Biased Diffusion with Stochastic Resetting”

Supervisor— Prof. Dibyendu Das

**M.Sc.** 2014-2016, IIT Indore,  
CPI—8.5 (in 10)

Thesis title: Photoproduction Cross-section of the eta-prime meson with CLAS ”

Supervisor— Prof. Ankhi Roy

**B.Sc.** 2011-2014, Jamia Millia Islamia (JMI),  
Percentage—74.04 (in 100)

**XII** 2007-2009, Board of High School and intermediate education, Uttar Pradesh,  
Percentage—68.00(in 100)

**X** 2005-2007, Board of High School and intermediate education, Uttar Pradesh,  
Percentage—64.5 (in 100)

## RESEARCH INTEREST

My research is aimed at understanding theoretical and computational problems in stochastic processes (specifically in biological systems). Getting a desired target at

finite time in such environments are very crucial. I have been applying various strategies to optimize the process. An strategy of Stochastic Resetting is one that optimize under certain conditions. In biological context, I have been working on virus assembly and disassemble. In general virus is encapsulated inside the capsid, which play very interesting role in virus fate. I have been looking on how capsid assembly and disassembly takes places under different physiological conditions.

### **ACADEMIC APPOINTMENT**

Postdoctoral Fellow at University of California Riverside, USA (2022-present).

### **PUBLICATIONS**

1. "First passage of a particle in a potential under stochastic resetting: A vanishing transition of optimal resetting rate",  
Saeed Ahmad and Dibyendu Das et al.,  
Physical Review E **99**, 022130 (2019).(Citations 64)
2. "Role of dimensions in first passage of a diffusing particle under stochastic resetting and attractive bias",  
Saeed Ahmad and Dibyendu Das,  
Physical Review E **102**, 032145 (2020). (Citations 8)
3. "First passage in the presence of stochastic resetting and a potential barrier"  
Saeed Ahmad, Krishna Rijal and Dibyendu Das,  
Physical Review E **105**, 044134 (2022). (Citations 8)
4. "Comparing the roles of time overhead and spatial dimensions on optimal resetting rate vanishing transitions, in Brownian processes with potential bias and stochastic resetting"  
Saeed Ahmad and Dibyendu Das,  
Journal of Physics A: Mathematical and Theoretical , **56**, 104001 (2023).

### **RELEVANT SKILLS**

#### **Programming Language.**

Python, C, root.

#### **Software Skills**

Mathematica, Latex, Gnu, Keynote, Microsoft Office, Xmgrace, OVITO

#### **Operating System**

Linux, Mac OS, Window.

### **TEACHING EXPERIENCE**

Physics general lab (experimental)

### **REFERENCES**

1. Prof. Dibyendu Das, Dept. of Physics, IIT Bombay, Mumbai 400076, India  
Tel: +91-22-25767555, E-mail: [dibyendu@phy.iitb.ac.in](mailto:dibyendu@phy.iitb.ac.in)
2. Prof. Amitabh Nandi, Dept. of Physics, IIT Bombay, Mumbai 400076, India  
Tel: +91-22-25767599, E-mail: [amitabha@phy.iitb.ac.in](mailto:amitabha@phy.iitb.ac.in)

3. Prof. Mithun Kumar Mitra, Dept. of Physics, IIT Bombay, Mumbai 400076, India  
Tel: +91-22-25767565, E-mail: [mithun@phy.iitb.ac.in](mailto:mithun@phy.iitb.ac.in)
4. Prof. Roya Zandi, Dept. of Physics, University of California, Riverside, USA  
E-mail: [royaz@ucr.edu](mailto:royaz@ucr.edu)

### **SCHOOL AND CONFERENCES**

1. Presented Poster in Indian Statistical Physics Community Meeting, International Centre Theoretical Science (ICTS), India, 2019.
2. Attended Bangalore School on Statistical Physics - X, ICTS, India, 2019.

### **AWARDS AND ACHIEVEMENTS**

1. Gold Medal, 2014 in B.Sc.
2. JAM, 2014 in Physics.
3. CSIR-JRF, 2016 in Physics
4. GATE, 2017 in Physics.
5. Fellowship for Teaching Assistantship (TA) at IIT Bombay