

# Curriculum Vitae

Shahryar Motamedi

**Birth:** July 23, 1987  
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## Summary

Astrophysicist specializing in galactic dynamics, modified gravity, and solar system physics. Expertise in analytical modeling, numerical simulations, and high-performance scientific computing. Research contributions include Milgromian dynamics, relativistic three-body chaos, solar/stellar dynamics, and space engineering.

## Online Profiles

GitHub: [github.com/shmotamedi](https://github.com/shmotamedi) – codes for astrophysical simulations  
ResearchGate: [researchgate.net/profile/Shahryar-Motamedi](https://researchgate.net/profile/Shahryar-Motamedi) – publications and citations  
LinkedIn: [linkedin.com/in/shahryar-motamedi-26b169b7](https://linkedin.com/in/shahryar-motamedi-26b169b7) – details of skills and experiences

## Education

<b>Ph.D. in Astrophysics</b>	2015–2024
Institute for Advanced Study of Basic Sciences (IASBS), Zanzan, Iran Advisor: Prof. Hosein Haghi ( <a href="mailto:haghi@iasbs.ac.ir">haghi@iasbs.ac.ir</a> )	
<b>M.Sc. in Space Engineering</b>	2010–2013
Sharif University of Technology (SUT), Tehran, Iran Advisor: Prof. Seid H. Pourtakdoust ( <a href="mailto:pourtak@sharif.edu">pourtak@sharif.edu</a> )	
<b>B.Sc. in Physics</b>	2006–2010
Sharif University of Technology (SUT), Tehran, Iran	

## Research Experience

<b>Research Assistant</b>	IASBS, Zanzan, Iran
Studied and compared dynamical friction timescales in Milgromian vs. equivalent Newtonian dynamics.	
<b>Research Assistant</b>	SUT, Tehran, Iran
Investigated chaos in the relativistic restricted three-body problem.	
<b>Visiting Researcher</b>	USTC, Hefei, China, 2019
Developed methods to compare Modified Newtonian Dynamics (MOND) with dark matter models.	
<b>Predoc Researcher</b>	RCISP, Tehran, Iran, 2014
Designed a high-precision orbit propagator using perturbation techniques, integrating physics and engineering approaches.	

## Honsrs & Awards

**Ph.D. Entrance Exam:** Ranked first in the IASBS Ph.D. entrance examination.  
**M.Sc. Admission:** Awarded a full graduate scholarship at SUT with direct admission (no entrance exam) for top-ranked national students.