

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 – codes for astrophysical simulations
ResearchGate: researchgate.net/profile/Shahryar-Motamedi – publications and citations
LinkedIn: linkedin.com/in/shahryar-motamedi-26b169b7 – skills and experiences

Education

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

Research Experience

Research Assistant	IASBS, Zanzan, Iran
Studied and compared dynamical friction timescales in Milgromian vs. equivalent Newtonian dynamics.	
Research Assistant	SUT, Tehran, Iran
Investigated chaos in the relativistic restricted three-body problem.	
Visiting Researcher	USTC, Hefei, China, 2019
Developed methods to compare Modified Newtonian Dynamics (MOND) with dark matter models.	
Predoc Researcher	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.