Curriculum Vitae

Shahryar Motamedi

Birth: July 23, 1987
Nationality: Iranian
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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 – academic and professional profile

Education

Ph.D. in Astrophysics 2015–2024
Institute for Advanced Study of Basic Sciences (IASBS), Zanjan, 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, Zanjan, 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.