# Curriculum Vitae

Dr. Shahryar Motamedi

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# **Summary**

Astrophysicist with Ph.D. in Astrophysics, specializing in galactic dynamics, modified gravity, and solar plasma physics. Skilled in analytical modeling, numerical simulations, and scientific computing. Research spans Milgromian dynamics, relativistic three-body chaos, and MHD wave propagation.

# **Online Profiles**

GitHub: github.com/shmotamedi

ResearchGate: researchgate.net/profile/Shahryar-Motamedi LinkedIn: linkedin.com/in/shahryar-motamedi-26b169b7

## 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.