Armen Tokadjian

CONTACT

armen.tokadjian@gmail.com
(818) 585-4397

RESEARCH INTERESTS

I work on theoretical modeling and simulations of tidal interactions between exoplanets and exomoons including the impact on orbital evolution, habitability, and detectability. I am especially interested in the search for the first exomoon, habitable worlds outside of the solar system, and the next frontier of missions that will answer some of astronomy's biggest questions.

EDUCATION

Ph.D, Physics — 2023 (expected)

University of Southern California

Advisor: Anthony Piro

M.S., Computer Science - Data Science — 2023 (expected)

University of Southern California

B.S., Physics — 2018

University of California, Los Angeles

HONORS AND AWARDS

USC-Carnegie Fellowship, 2018

FUNDING AWARDS

“Detecting the First Rocky Exomoons Outside the Solar System,” **Carnegie Venture Grant Award**, 2 years, $104,000 (co-I)

PRESENTATIONS

Contributed Talk: AAS 240, Pasadena, CA (June 2022)
Poster: TESS Science Conference II, Virtual (August 2021)
Poster: Habitable Worlds, Virtual (June 2021)
Poster: NExScI, Virtual (October 2020)
Contributed Talk: ExSoCal (September 2020)

PUBLIC OUTREACH

Head Telescope Operator for Undergraduate Astronomical Society: Organized and participated in weekly public telescope shows (2015-2018)

TEACHING EXPERIENCE

Teaching Assistant University of Southern California, Physics 151L: Mechanics Laboratory (2018-2020)

MEDIA

Universe Today Highlight, *Tidal Heating Could Make Exomoons Much More Habitable (and Detectable),* June 2022

RELEVANT COURSEWORK

Physics/Astronomy: Galaxies and Large Scale Structures, Quantum Mechanics, Advanced E/M, Advanced Mechanics, Relativity, Thermodynamics, Math Methods

Computer Science: Analysis of Algorithms, Database Systems, Foundations of AI, Machine Learning, Data Mining, Information Retrieval

TECHNICAL SKILLS

Mathematica, Python, Java, PySpark, Hadoop cluster computing, REBOUND, Machine Learning, SQL, Latex

PUBLICATIONS

4. **A. Tokadjian** & A.L. Piro, *Tidal Heating of Exomoons in Resonance and Implications for Detection,* 2022, submitte for publication in AJ (arXiv:2206.11368)

3. **A. Tokadjian** & A.L. Piro, *Probing Planets with Exomoons: The Cases of Kepler-1708 b and Kepler-1625 b* , 2022, ApJL, 929, L2

2. J.L. Margot,..., **A. Tokadjian**, et al., *A Search for Technosignatures around 31 Sun-like Stars with the Green Bank Telescope at 1.15-1.73 GHz,* 2021, AJ, 161, 55.

1. **A. Tokadjian** & A.L. Piro, *Impact of Tides on the Potential for Exoplanets to Host Exomoons* , 2020, AJ, 160, 194.