EDITORIAL

Inaugural Editorial: Illuminating Humanity's Pathway to a Lasting Cosmic Future

Jonathan H. Jiang[1,*]

[1] Beacon in the Cosmos LLC, Pasadena, CA 91101, United States

Abstract

This inaugural editorial introduces the *Journal of Humanity's Future in the Cosmos*, outlining its interdisciplinary vision, scope, and mission to advance research that supports the long-term survival and flourishing of intelligent life—on Earth and beyond.

Keywords: Cosmos, Humanity's Future.

1 A Journal for the Next Great Question

Throughout history, humanity has gazed upward at the stars not only to chart our place in the cosmos but to ask a deeper question: What is our future among them? The *Journal of Humanity's Future in the Cosmos* (*JHFC*) is founded to explore this very question through a synthesis of science, philosophy, and foresight.

Our era stands at an inflection point in cosmic history. For the first time, a species on Earth has developed the capability to alter its own planet, communicate across interstellar distances, and contemplate its long-term survival on a galactic timescale. These powers bring extraordinary promise—but also profound risk. From accelerating climate change and artificial intelligence to planetary defense and interstellar outreach, humanity now faces challenges that are planetary and cosmic in scope [1–3].

The *JHFC* is conceived as an interdisciplinary platform for addressing these challenges with scientific rigor and creative vision. We aim to connect the near-term frontiers of discovery—Mars exploration, exoplanet detection, climate foresight, and AI governance—with the long-term aspirations of civilization: survival, flourishing, and transcendence.

2 The Journal's Objectives and Scope

The *Journal of Humanity's Future in the Cosmos* welcomes contributions that bridge disciplinary boundaries and illuminate pathways toward a sustainable, multi-planetary, and ethically mature civilization. Its core objectives are to:

1. **Advance scientific understanding** of life in the universe—from origins to distribution, evolution, and detectability [4, 5].
2. **Support technological and policy innovation** for space exploration, planetary defense, and climate resilience [6].
3. **Examine existential risks** and develop robust strategies for civilizational resilience [3, 7].
4. **Foster ethical and philosophical reflection** on

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***Corresponding author:**
✉ Jonathan H. Jiang
jonjiangnew@gmail.com

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the future of intelligence, consciousness, and responsibility beyond Earth [8, 9].

5. **Promote dialogue** across science, the humanities, and governance, engaging a global community of researchers, educators, and visionaries.

Through these objectives, the *JRSC* aims to foster a strong international community committed to shaping the future of reliable computing.

The journal's scope encompasses, but is not limited to, the following interconnected domains:

- **Astrobiology & Exoplanetary Science**: Origins of life, biosignatures, and the search for intelligent life.
- **Space Exploration & Colonization**: Human survival on the Moon, Mars, and other celestial bodies.
- **Existential Risk & Civilizational Resilience**: Modeling and mitigating catastrophic risks such as nuclear war, AI misalignment, pandemics, and climate tipping points.
- **Planetary Defense & Cosmic Hazards**: Detection and mitigation of asteroid impacts, solar flares, supervolcanoes, and other cosmic threats.
- **Artificial Intelligence & Ethics**: Governance, alignment, synthetic consciousness, and their implications for humanity's future.
- **Climate Science & Earth System Sustainability**: Connecting Earth's long-term stability with planetary-scale feedbacks, adaptation technologies, and climate foresight.

We also welcome submissions in Futures Studies and Long-Term Thinking—including scenario modeling, deep-time forecasting, interstellar messaging, and philosophical frameworks for civilizations enduring across cosmic timescales.

3 Humanity at the Crossroads

Recent scientific and technological advances have transformed our understanding of both vulnerability and possibility. The discovery of over 6,000 exoplanets, the detection of complex organic molecules on Mars and Titan, and the deployment of next-generation observatories such as JWST mark unprecedented progress toward detecting life beyond Earth.

At the same time, Earth system science reveals the fragility of our planetary home. Anthropogenic climate change, biodiversity loss, and planetary-scale tipping points [10] underscore that sustainability on Earth is inseparable from our prospects in space.

Equally, the rise of artificial intelligence and biotechnology—while offering transformative tools—demands vigilant ethical governance [11]. The convergence of these trends defines the emerging field that the *JHFC* seeks to serve: the study of humanity's continuity in cosmic context.

4 A Vision of Collaboration Across Frontiers

To address such vast and interdependent questions, no single discipline suffices. The future of humanity in the cosmos will depend on collaboration among planetary scientists, engineers, ethicists, philosophers, and policymakers.

The *JHFC* will therefore foster an environment where data-driven research coexists with speculative foresight, and where empirical rigor meets moral imagination. Our vision is to build not just a journal, but a community of inquiry—a network of scholars and institutions dedicated to understanding and guiding humanity's trajectory beyond the confines of a single world.

5 The Way Forward

The first issues of the *JHFC* will highlight both foundational and forward-looking studies—from exoplanet biosignature modeling to frameworks for AI alignment, planetary governance, and cosmic ethics.

As Editor-in-Chief, I am deeply committed to maintaining the highest standards of peer review, academic integrity, and openness that define responsible scholarship. In this endeavor, I invite contributions from scientists, thinkers, and visionaries across the globe to join us in charting the pathways by which life and intelligence may endure and flourish across cosmic time.

The universe is vast, ancient, and silent. Whether that silence continues—or is finally broken by the sustained voice of a mature civilization—depends on the choices we make today.

Let the *JHFC* be one small but meaningful step in illuminating that path forward.

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Conflicts of Interest

Jonathan H. Jiang is an employee of Beacon in the Cosmos LLC, Pasadena, CA 91101, United States.

Ethical Approval and Consent to Participate

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Dr. Jonathan H. Jiang is a former Senior Research Scientist at the NASA Jet Propulsion Laboratory, California Institute of Technology. His research spans astrophysics, atmospheric dynamics, climate processes, planetary habitability, and humanity's future in the cosmos. He currently serves as President of the AGU Global Environmental Change Section and has previously served as Editor of Earth and Space Science and Editor-in-Chief of the Earth and Space Science Open Archive. Dr. Jiang has received the NASA Exceptional Scientific Achievement Medal and two NASA Exceptional Achievement Medals and is a Fellow of the American Meteorological Society. He is the founder and CEO of Beacon in the Cosmos LLC, a venture dedicated to inspiring the next generation of explorers. He holds a Ph.D. in Atmospheric Science from York University (Toronto, Canada) and is the author of Avoiding the Great Filter: Illuminating Pathways to Humanity's Future in the Cosmos. (Email: jonjiangnew@gmail.com)