

THE SPIRIT OF SPACE EXPLORATION IN CHINA AND THE WEST



DUKE KUNSHAN
Humanities Research Center

Welcome

We are delighted to welcome you to the Humanities Research Center's conference, *The Spirit of Space Exploration in China and the West*, on the campus of Duke Kunshan University.

DKU's Humanities Research Center was established to further interdisciplinary research in the arts, humanities and interpretive social sciences at Duke Kunshan University, a joint venture between Duke University, USA, Wuhan University, China, and the city of Kunshan. Interdisciplinarity and cross-cultural learning are hallmarks of the university's mission, and your participation in this conference helps us to achieve this goal.

This conference is part of a growing network of intellectual exchange across the world that aims to understand the cultural context of human exploration of and expansion into space. We are grateful to all those who have previously welcomed us into their research networks: Alexander Geppert and Rory Rowan, who organized the conference *Thinking Outer Space: Philosophy, Astroculture and the Histories of Planetarity* at New York University, Berlin, in 2023; and Jack Traphagan, who organized the conference *Space Intersections*, part of the Interplanetary Initiative at Arizona State University, in 2024. In this conference we aim to build on their important work and turn the conversation towards China's rapidly-expanding space program.

A large amount of work has already taken place regarding China's space policies, but this work is frequently read through the lens of military studies and global geopolitics. Our aim is to think through China's expansion into space from the perspective of China's cultural, philosophical and religious traditions. In this regard it is worth pointing out that our conference ends on the day of China's dragon boat festival, which commemorates the poet Qu Yuan who took his own life by wading into the Miluo River carrying a heavy rock in 278 BCE. Qu Yuan is known among other things for the *Chu Ci*, a collection of poetry, translated into English by David Hawkes as *Songs of the South*. The most famous poem, *Li Sao* ("Encountering Sorrow"), describes a glorious shamanic ascent into the heavens in contrast to the weariness and corruption of earthly life. We invite you to join us in placing China's contemporary space exploration in the context of its rich history of studying and imagining the heavens.

James Miller & Ben Van Overmeire

Duke Kunshan University

THURSDAY, JUNE 6, 2024

Events take place in Wuhan-Duke Research (WDR) building 1005 unless otherwise noted.

0830-0900 A light breakfast is available in WDR1003

0900-0930 **OPENING CEREMONY & WELCOME SPEECHES**

Scott MacEachern, Vice Chancellor for Academic Affairs

James Miller, Professor of Humanities

Ben Van Overmeire, Assistant Professor of Religious Studies

Jack Traphagan, Convenor of the Space Intersections Conference at Arizona State University

0930-1030 **KEYNOTE LECTURE**

Chair: Ben Van Overmeire

Jeffrey Kripal

"Shooting Down Souls... Good Luck with That": Some Paradoxical Thoughts on the UFO Phenomenon from a Historian of Religions

The convergence of recent events prompts reflection on the intersection between academic initiatives and the broader exploration of anomalous phenomena, particularly within the context of university research and Jacques Vallée's work. This talk explores the relationship between scientific inquiry and the study of religious and mystical experiences in understanding the UFO phenomenon. Drawing from historical, comparative, and altered states of consciousness perspectives, the speaker discusses the implications of UFO encounters within the frameworks of technology, public policy, and religion.

The presentation delves into the complexities of interpreting UFO encounters, highlighting the limitations of traditional disciplinary boundaries and the need for a multidisciplinary approach. It addresses the challenges posed by the UFO phenomenon to conventional scientific paradigms and suggests avenues for integrating spiritual and apophatic perspectives into the discourse. Ultimately, the talk advocates for a nuanced understanding of the UFO phenomenon that transcends simplistic categorizations and embraces the inherent complexities of human experience and consciousness.

1030-1100 Coffee Break

1100-1230 **PANEL 1: SINICIZING OUTER SPACE**

Alexander C.T. Geppert and Lu Liu: *The Face of Space: Qian Xuesen and Chinese Astroculture*

Tonio Savina: *"Sinicizing" the Moon: the Promotion of Chinese Astroculture through Lunar Nomenclature*

Evander Price: *Chinese Perspectives on the NASA Voyager Golden Record*

1230-1400 Lunch Break: Conference Center Lobby

1400-1600 **PANEL 2: COMPARATIVE PERSPECTIVES**

Brad Tabas: *The Question Concerning Technology in Outer Space*

Olga Dubrovina: *Dreaming of Space in the USSR*

Vladimir Brljak: *Dark Space in New Space: Jeff Bezos's "Great Inversion," William Shatner's "Black Ugliness," and the History of the Cosmological Imagination*

Thore Bjørnvig: *Transcendence of Time and Space: Outer Space Religion as a Trans-Cultural Phenomenon*

1600-1630 Coffee Break

1630-1730 **KEYNOTE LECTURE**

Chair: James Miller.

SU Meng

Why Space? The Boundary of Space Explorations in the New Space Era

Even before the first satellite Sputnik-1, astronomers have been dreaming about observing the Universe above the disturbing atmosphere. In the last ~60 years, a small number of satellites (~1 percent of the total number of spacecrafts ever launched) have been used to carry space telescopes "looking up" the sky, including the recent NASA's flagship mission James Webb Space Telescope (JWST). China is also going to launch the Chinese Space Station Telescope around 2025. These science-driven large facilities have opened a rich and exciting world of space astronomy through observation of different bands of the electromagnetic spectrum. However, although large astronomical equipment is powerful, funding required for

these large missions has been increased dramatically. In recent years, global commercial aerospace industry is booming. Today, more than 80 percent of global space activities are no longer dominated by governments but commercial space companies like SpaceX and Blue Origin etc. It is expected that the total number of space satellites in operation will be increased by 1-2 orders of magnitude within the next ten years. This year also marks the one decade of China's commercial space activities since 2014, hundreds of commercial aerospace companies have been established, if not thousands.

In this lecture I summarize the work of the Laboratory for Space Research at the University of Hong Kong to create an ecosystem for a new space economy. We believe that the new space era will extend the boundary of human beings and make human beings multiplanetary, by taking advantage of resources from the moon and the asteroids. We have estimated that the whole solar system is capable of hosting trillions compared to billions of the population on the earth.

1800 Meet at the Conference Center lobby for short walk to Yidiantian City Farm restaurant 一点田城市农场餐厅.

FRIDAY, JUNE 7, 2024

Events take place in Wuhan-Duke Research (WDR) building 1005 unless otherwise noted.

0900-0930 A light breakfast is available in WDR1003

0930-1030 **KEYNOTE LECTURE**

Chair: Ben Van Overmeire

Mary Jane Rubenstein

For All Humanity: Chinese Transvaluations of American Space Rhetoric

In the wake of the Soviet launch of Sputnik, Dwight Eisenhower demanded that the US develop a national space program "for the benefit of all mankind." Answering the call eleven years later, Neil Armstrong dubbed his own small lunar step a "giant leap for mankind."

The initially American meme of "all-mankindism" has recently been adopted and redeployed by the Chinese National Space Agency, state media, and

popular culture. Insisting it is working “for the benefit of all humanity,” China is offering a self-consciously earth-centered, collective, non-antagonistic alternative to the escapism, individualism, and militarism that generated this phrase in the first place. In other words, China is using US space rhetoric against itself, exposing and refusing cosmic imperialism in favor of an ethos it swears is genuinely collaborative and actually universal.

1030-1100 Coffee Break

1100-1230 **PANEL 3: VISION, TECHNOLOGY, AND MEDIA**

Kiu-wai Chu: *Native Soil Goes to Space: Chinese Planetary Fictions in the Anthropocene*

Ting Zheng: *Technoecological Eyes: The Compound Eyes in Space and Nature*

Saskia Abrahms-Kavunenko: *On Star work and Dharma: Contemporary Buddhist Visioning of the Universal and the Universe*

Lukáš Likavčan: *Elemental Mediality of Light: Infrared Waves in Cosmic Information Ecologies*

1230-1400 Lunch Break: Conference Center Lobby

1400-1530 **SPACE RESEARCH AT DKU: SCIENTIFIC PERSPECTIVES**

Kai Huang, Professor of Physics and Chair of the Division of Natural and Applied Sciences

Marcus Werner, Associate Professor of Mathematics and Director of Faculty Development

Changcheng Zheng, Associate Professor of Physics and Director of the Research Support Office

1530-1600 Coffee Break

1600-1730 **SPACE RESEARCH AT DKU: INTERDISCIPLINARY PERSPECTIVES**

Gaia Theory as a Cosmological Investigation of Buddhist Dharma

Travis Wilkerson, Associate Professor of Documentary Practice

Erin Wilkerson, Artist and Filmmaker

Ding Ma, Assistant Professor of Atmospheric and Environmental Science

- 1800 Meet at the Conference Center lobby for short walk to Mamma Mia restaurant in Dayu Bay 妈妈咪呀意大利餐厅 (大渔湾站).
- 1930-2130 Film Screening and Discussion with Travis Wilkerson and Erin Wilkerson (Innovation Building Lecture Theater)
- A Long Day's Journey Into Night* (Bi Gan, 2018)
- Pluto Declaration* (Travis Wilkerson, 2011)

SATURDAY, JUNE 8, 2024

Events take place in Wuhan-Duke Research (WDR) building 1005 unless otherwise noted.

0900-0930 A light breakfast is available in WDR1003

0930-1100 **PANEL 4: PHILOSOPHY AND OUTER SPACE**

Lance Gharavi: *The New Transcendence Narrative for U.S. Space Exploration*

Mohamed Zreik: *Bridging Traditions: The Confluence of Eastern Philosophies and Space Exploration in China's Contemporary Astroculture*

Ujjwal Kumar and Haoqin Zhong: *Exploring the Philosophical Underpinnings: Buddhism and the Possibility of Extraterrestrial (=Alien) Life*

1100-1130 Coffee Break

1130-1230 **KEYNOTE LECTURE**

Chair: James Miller

CHEN Qiufan

Eastern Religions in Chinese Space SciFi

Through exploring the expression and reflections of eastern religions such as Daoism, Buddhism and indigenous belief systems in Chinese space science fiction and movies, I try to navigate how ancient religions can be integrated and interconnected with a technocosmical framework and even play an important role of renewing the genre in the future.

1230-1300 **CLOSING CEREMONY AND PHOTOGRAPH**

KEYNOTE SPEAKERS

CHEN Qiufan (aka Stanley Chan) is one of China's leading science fiction authors, and a translator, creative producer, and curator. He is a Berggruen Institute Fellow and a Yale University research scholar, and co-author, with former Google China president Kai-Fu Lee, of *AI 2041: Ten Visions for our Future*.



Jeffrey Kripal holds the J. Newton Rayzor Chair in Philosophy and Religious Thought at Rice University. He is the author of many books, including *Esalen: America and the Religion of No Religion* and *The Serpent's Gift: Gnostic Reflections on the Study of Religion*. He is known worldwide as a leading theorist of religion, the paranormal, and the impossible.



Mary Jane Rubenstein is a philosopher of science and religion and author, most notably, of *Astrotopia: The Dangerous Religion of the Corporate Space Race*. Her work offers a vision of exploring space without reproducing the atrocities of earthly colonialism, and encourages stories that put cosmic caretaking over corporate profiteering.



SU Meng, founder and chief scientist of Origin Space is one of the world's leading space scientists. Professor Su received his BSc from Peking University and his PhD in astrophysics from Harvard University. He received a Pappalardo fellowship from MIT, an Einstein fellowship from NASA (now part of the NASA Hubble Fellowship Program), and was the co-winner of the 2014 Bruno Rossi prize for high-energy astrophysics for the discovery of the bubble structure of the Milky Way.



PANELISTS

Saskia Abrahms-Kavunen is an anthropologist and the author of *Enlightenment and the Gasping City*. She has published on the topics of plastics, global warming and pollution, doubt and materiality, Buddhism, shamanism, postsocialism, and economic anthropology in Australia, Mongolia, and India. She is currently a Marie S. Curie FCFP Senior Fellow at the Freiburg Institute for Advanced Studies. Dr Abrahms-Kavunen is dedicated to the role of anthropologist as co-communicator and collaborative agent. Her work is situated at intersections between environmental changes and cultural praxis, in multi-scalar and trans-species contexts. She has held research positions at the University of Copenhagen, IMéRA Aix-Marseille Université, the Max Planck Institute for Social Anthropology, New York University Shanghai, the Max Weber Center for Advanced Cultural and Social Studies, and the Institute for Advanced Studies at the University of Edinburgh. She is the co-founder of Cenote (seh-notay) a traveling multi-disciplinary residency program committed to bridging the communicative gap that yawns ever wider between human cultures and the living systems and intelligences which support and co-constitute our existence.

Thore Bjørnvig is a historian of religion based in Copenhagen. His research focuses on religious aspects of spaceflight, SETI and science fiction. He has contributed to two volumes on European astroculture, edited by Alexander Geppert, and co-edited a special issue of *Astropolitics* on spaceflight and religion together with Roger Launius and Virgiliu Pop. Thore Bjørnvig's most recent article is 'Leaving the Cradle: Apocalypse, Transcendence and Childhood's End,' in Andrew M. Butler and Paul March-Russel, eds., *Rendezvous with Arthur C. Clarke: Centenary Essays* (2022).

Vladimir Brljak is Associate Professor in the Department of English Studies at Durham University, UK. In addition to his primary specialization in English and comparative literary history, he also works on the literary and cultural history of outer space. His main current project in this field, *When Did Space Turn Dark?*, examines the shift from bright to dark space in the Western cosmological imagination. He has given invited presentations on this research, including at the NYU Space Talks, and several publications emerging from it are now nearing completion. The project was also the focus of his recent Frances A. Yates Long-Term Fellowship at the Warburg Institute (2022-23), during which he co-organized the conference *Space in Time: From the Heavens from Outer Space*, exploring long perspectives on the subject across the humanities and social sciences. He has held the Thole Research Fellowship at Trinity Hall, Cambridge (2015-18), as well as visiting fellowships and research grants at the Bodleian Library (2017), Huntington Library (2018), and Durham University (2022).

Kiu-wai Chu (BA London; MPhil Cantab; PhD HK) is Assistant Professor at Nanyang Technological University, Singapore. He is an Associate Editor of *Environmental Humanities* (Duke University Press); and Executive Councillor of the Association for the Study of Literature and Environment (ASLE-US, 2021-23). In 2022-23, he was named a Luce East Asia Fellow at the National Humanities Center, USA. His research centers on environmental humanities, ecocriticism, and cinema and visual art in East and Southeast Asian contexts. He has co-edited *The Routledge Handbook of Ecomedia Studies*, and published in journals such as *Journal of Chinese Cinemas*; *Asian Cinema*; *photographies*; *Screen*; *Oxford Bibliographies*; *ASAP/J*; and books *Transnational Ecocinema*; *Ecomedia: Key Issues*; *Chinese Environmental Humanities*; *Embodied Memories, Embedded Healing*; *The Bloomsbury Handbook to the Medical-Environmental Humanities*, and elsewhere.

Olga Dubrovina, PhD in Humanities (2015, Modena and Reggio Emilia University) and PhD in Contemporary History (2017, Moscow State University Lomonosov). In 2015-2018 she was an adjunct

professor at Modena and Reggio Emilia University where she lectured Russian history and culture. In 2020-2021 she participated in Horizon 2020 project InsSciDE (Inventing a shared Science Diplomacy for Europe) with the case study on Russian Science Diplomacy throughout the Space race during the Cold War. Her current position is Research Fellow at Department of Political Science, Law and International Studies (SPGI), University of Padua. She also lectures on History of international relations at the State University of Milan. Among the latest publications: "Space diplomacy in the Cold War context: How it worked on the Soviet side," in Mays, Laborie et Griset (eds.), *Inventing a Shared Science Diplomacy for Europe: Interdisciplinary Case Studies to Think with History*, Zenodo, 2022, pp. 243-250; "Russia's space diplomacy: why we should look back to the Soviet Years," in *Histoire, Europe et relations internationales*, vol. 2, no. 2, 2022, pp. 39-51; "Gorbachev's policy in the aerospace sector: from stars to earth," in *L'Artico e lo Spazio. Le rotte del nuovo Millennio tra storia e innovazione scientifica*, Passerino Editore, 2022, pp. 119-152.

Lance Gharavi is an experimental artist and scholar, professor in the Arizona State University School of Music, Dance and Theatre, and Associate Director of ASU's Interplanetary Initiative. An early pioneer in the field of digital performance, his work focuses on points of intersection between performance, technology, science, and religion. He specializes in leading transdisciplinary teams of artists, scientists, designers, and engineers to create compelling experiences and advance research.

Alexander Geppert is Associate Professor of History and European Studies, and Global Network Associate Professor at New York University, with a joint appointment at NYU New York and NYU Shanghai. From 2010 to 2016 he directed the Emmy Noether research group *The Future in the Stars: European Astroculture and Extraterrestrial Life in the Twentieth Century* at Freie Universität Berlin. He has held the Charles A. Lindbergh Chair in Aerospace History at the Smithsonian National Air and Space Museum in Washington, DC, served as the Eleanor Searle Visiting Professor of History at the California Institute of Technology in Los Angeles, and is currently Scholar-in-Residence at the Deutsches Museum in Munich. Alexander Geppert's space-related book publications include a trilogy on European astroculture, consisting of *Imagining Outer Space: European Astroculture in the Twentieth Century* (2018, ed.), *Limiting Outer Space: Astroculture after Apollo* (2018, ed.), *Militarizing Outer Space: Astroculture and Dystopia and the Cold War* (2023, co-ed.). Together with the members of his Global Astroculture research group, he is currently at work on a special journal issue on "rocket stars" in the Global Space Age and two monographs, *Astroculture: Europe in the Age of Space*, and a sequel, *Planetizing Earth: An Extra-Terrestrial History of the Global Present*. He also runs the *NYU Space Talks: History, Politics, Astroculture* lecture series (space-talks.com).

Dr. habil. **Kai Huang** is Professor of Physics at Duke Kunshan University. He received his BS in Electronic Engineering (2000) and his PhD in Physical Acoustics (2006) from Nanjing University. He did postdoctoral training (2006-2009) at Max-Planck Institute for Dynamics and Self-organization. Since 2009, he started to build a research group at University of Bayreuth in Bavaria and to teach physics courses at both undergraduate and graduate levels. In 2014, he got his *Habilitation* in physics, a scientific and pedagogic qualification for professors in Germany. From 2015 to 2019, he continued to work at University of Bayreuth as a *Privatdozent*. He is interested in understanding, predicting and eventually controlling the collective behavior of sand grains (i.e., granular materials) by means of lab experiments and computer simulations, in order to shed light on widespread applications such as space exploration, powder based additive manufacturing (3D printing), landslide and earthquake triggering, dune migration and transport. He is also interested in the acoustical design of opera theaters (e.g. the Bayreuth Festspielhaus of Richard Wagner), partly as a consequence of his lecture on acoustics.

Ujjwal Kumar, born in 1980, is a distinguished scholar whose academic journey has traversed prestigious institutions, leading to a remarkable career in the field of Pali and Buddhist Studies. He embarked on his educational voyage at Banaras Hindu University, Savitri Bai Phule Pune University

(formerly known as Pune University), and the University of Hong Kong. He has authored a total of thirty-four articles, one Occasional Paper, and nine books, each offering valuable insights into various aspects of Pali language and literature. Dr. Ujjwal Kumar is presently involved in a significant research endeavor focused on translating the *Aṅguttaranikāya* from Pāli to English. This collaborative project is funded by the Department of Religious Affairs, Ministry of Culture, Government of Thailand, and it commenced on June 2, 2022, continuing up to the present day. In addition to his ongoing project, Dr. Kumar is deeply engrossed in researching Pāli cosmological literature. In recognition of his outstanding contributions to the field of Pāli, Dr. Kumar received the *Maharṣi Bādarāyāna Vyāsa Sammāna* in 2016 from the President of India.

Lukáš Likavčan is a philosopher. His research focuses on philosophy of science & technology and environmental philosophy. He is a Global Perspectives on Society Postdoctoral Fellow at NYU Shanghai, and a guest researcher at Astronomy & Society Group, Leiden University. Likavčan is an author of *Introduction to Comparative Planetology* (2019) and a member of More-than-Planet Working Group at Waag Futurelab. More info at likavcan.com.

Lu Liu (PhD 2019, University of Wisconsin-Madison) has been an Assistant Professor of Chinese at the School of Modern Languages, Georgia Tech since 2021, after two years as a visiting Assistant Professor. A scholar of modern Chinese literature and media, her research examines the interplay of science, technology, and medicine with media and visual cultures. Her first book project, *Pestering Modern China: Animal, Socialist Subjectivity, and Biosocial Abjection*, theorizes the pivotal role of the “pest” in shaping critical issues such as trans-species relationships, public health, and nation-building in modern Chinese history. Her second book project, *Viral Cinema: Virology and the Body in Modern China*, examines how virological knowledge constitutes the imagination of a Chinese body from the 1930s to the COVID-19 pandemic. She is also developing a collaborative project on China’s space endeavors and the making of Qian Xuesen, the father of Chinese spaceflight.

Ding Ma’s broad research interests are climate variability, weather extremes, and atmospheric dynamics. The essential motivation for his research is to better understand and predict the behavior of the climate system, which has led to his focus on the variability of the large-scale atmospheric circulation and the related weather extremes. His teaching interests at Duke Kunshan include environmental science and physics. He has had papers published in leading academic journals including *Nature Communications*, *Journal of Climate*, and *Journal of Atmospheric Sciences*. He is a member of American Geophysical Union and American Meteorological Society. Ma has a B.A. in physics for Peking University and a Ph.D. in climate dynamics from Harvard University. After receiving his Ph.D., he joined Columbia University as an Earth Institute Fellow.

James Miller is Professor of Humanities at Duke Kunshan University and Co-Director of the Humanities Research Center. His research focuses on the intersection of religion and ecology in China. He has published six books including *China’s Green Religion: Daoism and the Quest for a Sustainable Future* (Columbia, 2017). He is noted worldwide as an expert in Daoism, China’s indigenous religion. His teaching interests at Duke Kunshan include ethics and leadership, global China studies, environmental science, U.S. studies, religious studies and philosophy. Miller has a BA in Chinese studies from Durham University, an MA in theological and religious studies from Cambridge University, and a Ph.D. in religious and theological studies from Boston University. In Fall 2023 he was a Distinguished Visiting Scholar at the Library of Congress, Washington, DC.

Evander Price is an assistant professor teaching environmental humanities at the Chinese University of Hong Kong. He received his PhD in American Studies from Harvard University in 2019 and was the postdoctoral fellow from 2020-2022 at the Center for Religion and the Human at Indiana University, Bloomington.

Tonio Savina, PhD in “Civilizations of Asia and Africa” at Sapienza University, Rome, with a thesis on The Chinese Space Program in Perspective: Domestic and International Narratives (2022). He is currently a Postdoctoral Fellow at the University of Siena, Italy. In 2023 he was selected as a MOFA Taiwan Fellow for a visiting research period at Academia Sinica, Taipei, and in 2022 he received a Post-doc Research Grant in History from the European Space Agency (ESA). During his PhD studies, he carried out research at the main libraries in Mainland China and Taiwan, where he was also a visiting PhD Candidate at National Chengchi University. He is a member of the Italian Association for Chinese Studies (AISC) and of the European Society for the History of Science (ESHS). His research interests include the history of Chinese space exploration, Chinese astroculture, narrative theories, space diplomacy, and the international relations of the PRC. On these topics he published several essays and two monographs in Italian: *I rapporti tra Cina e Stati Uniti dagli anni Settanta agli anni Duemila: una prospettiva astropolitica* (2020) [trans. US-China Astropolitical Relations (1970s-2000s)] and *Tra storia e narrazione: il programma spaziale della Repubblica Popolare Cinese* (2023) [trans. The Chinese Space Program: Between History and Narrative].

Brad Tabas is a philosopher. He is an Assistant Professor in the Department of Social and Human Sciences at the ENSTA, a grande école for engineers located in Brest, France. His recent work has particularly focused on the question of historicizing outer space, and in particular thinking critically about how the dawning of the Space Age challenges inherited conceptual categories, above all those relating to ideas about secularity, language, place, life, and the future. His recent work has appeared in *Terrain, Cosmos and History, Society + Space*, and elsewhere.

Ben Van Overmeire is Assistant Professor of Religious Studies at Duke Kunshan University. His research focuses on the study of Zen Buddhist texts. His teaching interests at Duke Kunshan include ethics and leadership, global China studies, religion and literature. Van Overmeire has a B.A. (cum laude) and M.A. (summa cum laude) in Germanic languages and literatures from the Vrije Universiteit Brussel, Belgium; an M.A. in American studies (magna cum laude) from the University of Antwerp, Belgium; an M.A. in comparative literature (magna cum laude) from the State University of New York, Stony Brook; and a Ph.D. in literature from the University of California, San Diego.

Marcus Werner is Associate Professor of Mathematics at Duke Kunshan University. His research is in mathematical physics, at the intersection of geometry and astrophysics. In particular, he is interested in general relativity, its modifications and applications, such as mathematical properties of gravitational lensing. His teaching interests at Duke Kunshan are in the applied mathematics major, especially geometrical topics, and in developing interdisciplinary courses. He has published in leading academic journals and has been a member of the American Mathematical Society, the Royal Astronomical Society (U.K.), and the German Physical Society. Werner has an M.A., an M.Nat.Sci. and a Ph.D. from the University of Cambridge. Before joining Duke Kunshan, he taught in Duke University's Department of Mathematics before moving to Japan in 2011 to serve first as a researcher at the University of Tokyo's Kavli Institute for the Physics and Mathematics of the Universe and then as a Hakubi assistant professor at Kyoto University

Guerilla gardener, turned guerilla filmmaker, **Erin Wilkerson** is interested in anti-colonial ecologies, as an expansion of early professional work in landscape architecture, which instilled in her a passion to fight for the natural world. Her solo films have screened at Prismatic Ground (New York), INTERSECCION (Spain), FICUNAM and Untra Cine (Mexico), and DOKUFEST (Kosovo). Since 2010, she has worked collaboratively as Creative Agitation, with her partner, filmmaker Travis Wilkerson, best known for their co-directed and co-written film, *Nuclear Family*, which documents a 2019 road trip to nuclear missile silos of the American West, that premiered at the Berlin Forum, was awarded Mencion Especial at Mar del Plata IFF, and went on to screen at 20+ festivals including the Viennale. She is also known for her mixed media art which was featured in the Slovenian Pavilion of the Venice Biennale (2014). She has published critical texts and poetry, and as the Managing Editor of the online newsreel,

NOW Journal, has curated programs on urgent praxis, in response to world events. She is currently working towards a PhD in Research and Practice from Liverpool John Moores University, in partnership with the TransArt Institute, on expanding ideas of Invasive Species, alongside an accompanying film, *Strange Flower* (little sister to the poor).

A chance meeting in Havana with the legendary Cuban filmmaker Santiago Alvarez changed the course of **Travis Wilkerson's** life. His internationally recognized body of filmmaking crosses boundaries with documentary and fiction, performance, and activism. At the epicenter of his work is the ongoing search for meeting points of aesthetic eloquence and political engagement, produced with an absolute modesty of material resources, as self-sufficiently as possible. In 2015, *Sight & Sound* called Wilkerson "the political conscience of American cinema." His films have screened at hundreds of venues and festivals worldwide, including Berlin, Sundance, Toronto, and Locarno. *The New Yorker* called *Did You Wonder Who Fired the Gun?* one of the "Sixty-Two Films That Shaped the Art of Documentary Filmmaking." *An Injury to One*, was named one of the best avant-garde films of the decade by *Film Comment* and a "political-cinema landmark" by the *LA Times*. His latest work, *Through the Graves the Wind is Blowing*, is a tribute to the Yugoslavian Black Wave. His writings on film have appeared in *Cineaste*, *Kino!*, and *Senses of Cinema*. He is Associate Professor of Documentary Practice, Duke Kunshan University.

Changcheng Zheng is Associate Professor of Physics at Duke Kunshan University. He obtained a B.Sc. in physics from University of Science and Technology of China in 2007 and completed his Ph.D. in 2011 (degree awarded in 2012) at the Department of Physics, University of Hong Kong (HKU). After being a research assistant/associate at HKU for more than a year, he worked as a lecturer at Xi'an Jiaotong-Liverpool University from 2013 to 2019. His research is about experimental condensed matter physics: optical properties of semiconductors and nanostructures, exciton dynamics in bulk and low dimensional systems under different excitation conditions, and nonlinear optical properties of novel luminescent/fluorescent materials. He has taught university physics for about 10 years, completed three external research projects, and published more than 50 journal papers with co-authors.

Ting Zheng is a fifth-year Ph.D. student in modern Chinese literature at Stanford University. She earned her Bachelor's degree from DePauw University and her Master's degree in East Asian Studies from the University of Virginia. Her dissertation research focuses on the eyes and the representation of eyes in twentieth-century China at the intersection of literary studies, medical humanities, disability studies, phenomenology, new materialism, and biopolitics.

Haoqin Zhong got her Ph.D. at the Center of Buddhist Studies at the University of Hong Kong. She received her BS and MS in China from Peking University and Tsinghua University, respectively. Her research interests include Buddhist narrative literature, Feminist Buddhism, Chinese Buddhism, early Buddhism, Vinaya Studies, and comparative religions etc.

Mohamad Zreik, a Postdoctoral Fellow at Sun Yat-sen University, is a recognized scholar in International Relations, specializing in China's Arab-region foreign policy. His recent work in soft power diplomacy compares China's methods in the Middle East and East Asia. His extensive knowledge spans Middle Eastern Studies, China-Arab relations, East Asian and Asian Affairs, Eurasian geopolitics, and Political Economy, providing him a unique viewpoint in his field. Dr. Zreik is a proud recipient of a PhD from Central China Normal University (Wuhan). He's written numerous acclaimed papers, many focusing on China's Belt and Road Initiative and its Arab-region impact. His ground-breaking research has established him as a leading expert in his field. Presently, he furthers his research on China's soft power diplomacy tactics at Sun Yat-sen University. His significant contributions make him a crucial figure in understanding contemporary international relations.

ABSTRACTS

Saskia Abrahms-Kavunenko: *On Star work and Dharma: Contemporary Buddhist Visioning of the Universal and the Universe*

For many people around the world the experience of the night is heavily mediated by the presence of electric lighting which, whilst illuminating building interiors and city streets, simultaneously conceals the night sky. Yet, as the heavens recede behind artificial lighting and smog, there is a new wave of ambition for traveling into outer space. This talk will look at a Buddhist community in Western Australia for whom the contemplative practices of absorption animate an expansive vision of the Earth's place in the solar system, while other practices such as Star Work encourage an experiential mode of exploring the cosmos. Within Buddhism light, and its capacity to illuminate, is often seen in opposition to darkness and ignorance. Electric lights are frequently used to enhance the revelry of Buddhist festivals, yet the night time can provide a space for quietude and reflection. Buddhist practitioners frequently sit in dimly lit rooms, reading mantras, practicing meditation and carrying out rituals before dawn. Buddhist astrologers interpret the stars, and the lucent glow of the full Moon is auspicious, marking important ritual dates and the renewal of calendars. This talk will offer an exploration of the dynamic tensions between the partial divorce with the cosmos attendant to obscuration, the vertiginous immersion of an unobstructed night sky and modernist imaginaries of intergalactic travel from a Buddhist perspective.

Thore Bjørnvig: *Transcendence of Time and Space: Outer Space Religion as a Trans-Cultural Phenomenon*

The idea that imaginings of outer space exploration and religion are intertwined has been gaining traction during the last 10 years. Before this it was common to argue that UFOs and religion are connected, just as it was common to point out the religious dimensions of what I call "psycho-occult" ways of exploring outer space and the encounter with extraterrestrial beings. Likewise it has been pointed out that the Search for Extraterrestrial Intelligence displays spiritual dimensions. The appearance of religious sentiments in these areas indicates that a common spiritual ground unites them. This common ground might be termed "outer space religion" and its mythos can be uncovered by studying science fiction. Stipulating that sci-fi is apocalyptic in nature, apocalypticism is the key to unlocking the religious underpinnings of both space exploration, SETI, the UFO-phenomenon (when seen as origination from outer space) and psycho-occult experiences of outer space. Theoretical in nature this paper explores the possibility that a common outer space religious mythos unites the aforementioned areas across cultures, from the West to the East, the latter exemplified by science fiction movies such as the Indian *Koi... Mil Gaya* (2003) and the Chinese *Wandering Earth* (2019).

Vladimir Brljak: *Dark Space in NewSpace: Jeff Bezos's "Great Inversion," William Shatner's "Black Ugliness," and the History of the Cosmological Imagination*

On 13 October 2021, the second crewed flight by Jeff Bezos's Blue Origin company included the actor William Shatner, famous for his role in the original Star Trek series of 1966–69. One of few civilians to witness stratospheric descent in daytime, Shatner singled out the experience in a widely reported post-flight statement, notable for its emphatically negative response to space: "[E]verybody in the world needs to do this. [...] To see the blue colour whip by you, and now you're staring into blackness', 'black ugliness', and 'death.'" Drawn from a larger project titled *When Did Space Turn Dark?*, the paper discusses Shatner's statement, along with the 'NewSpace' moment more generally, as episodes in the long shift from bright to dark space in the Western cosmological imagination.

Analysis of the statement reveals it as a carefully coached performance, promoting not only Bezos's space tourism venture but also his concept of the "Great Inversion": a model of space colonization influenced by the work of Gerard O'Neill, where heavy industry is moved off-Earth, preserving the planet as humanity's "national park." The paper situates these developments within broader perspectives on the perceived colour of space and its complex cultural and political dynamics.

Kiu-wai Chu: *Native Soil Goes to Space: Chinese Planetary Fictions in the Anthropocene*

Focusing on the new Chinese science fiction wave in the literary, cinematic and visual art scenes, this presentation offers an ecocritical examination of recent fictional narratives that center on space travel, and discuss how they could foster transcalar perspectives and tackle ecological concerns across local, global, and planetary scales. Drawing from examples such as Chen Qiufan's short story "Space Leek" (2019) and Liu Chuang's multi-screen video art installation "Lithium Lake and the Lonely Island of Polyphony" (2023), this presentation explores how Chinese "planetary fictions" navigate the intricate balance between local/regional and global planetary concerns. Do we see a revival of the spirit of "native soil" (xiangtu) and hometown writing that characterized the 20th century modern Chinese literature in recent works about space travel and exploration? How do they expand the notion of "home" in the Anthropocene present and the post-Anthropocene future? This presentation argues for a need to develop a comparative, pluralistic ecocritical paradigm that is built upon concepts such as eco-cosmopolitanism (Heise 2008); cosmopolitics/ cosmotechnics (Hui 2017,2021); and classical Daoist and Confucian thoughts, in order to examine the interplay between technology and religion, modernity and tradition, when facing the environmental challenges in the Anthropocene epoch.

Olga Dubrovina: *Dreaming of Space in the USSR*

It is generally accepted among Cold War historians that space exploration on both the Soviet and American sides is primarily related to the goal of achieving military-strategic priority. Thus, in the USSR, enormous financial, scientific, and human resources were spent on the intercontinental missile project starting in the mid-1940s. However, it was not only the interest in state security that drove the space exploration process. The key figures who were directly involved in the development and production of space technology were driven not only by the desire to prove the superiority of communism over capitalism. These Soviet engineers and scientists at the dawn of the space age regarded space as the main source of energy that fuelled their boundless enthusiasm. The latter was not backed by hopes of world fame (due to the secrecy of the entire sector), nor by material benefits in their Western sense, nor by guarantees of personal safety (just remember the purges of the 1930s). So, what drove these pioneers of Soviet space? Based on their memoirs, as well as biographies written by their relatives, contemporaries, and historians, I will try to reconstruct the ideas about space that guided the space explorers in the USSR at the early stage of the Cold War.

Alexander C.T. Geppert and Lu Liu: *The Face of Space: Qian Xuesen and Chinese Astroculture*

Qian Xuesen (1911-2009), widely recognized as the Chinese "father of spaceflight," is a household name within China but remains relatively obscure on the international stage. Trained at the California Institute of Technology, he co-founded the Jet Propulsion Laboratory before returning to China in 1955, where he became instrumental in the space program and missile industry. Interrogating the discrepancy, this article investigates the social, cultural, and political rationale behind the making of a space persona. Utilizing digital visualization and reading methods, it charts the transformation of Qian from an aeronautical engineer known only within expert circles to China's foremost rocket star. The analysis deconstructs key facets of Qian's public image and explores forces and paradoxes that underlie the ongoing construction of this image. Transforming Qian into the face of space plays a crucial role in popularizing spaceflight activities, rendering outer space a conceivable frontier, and producing a Chinese astroculture. Examining a comprehensive body of visual materials, media

reports, over 150 biographies, and posthumous memorialization activities reveals the celebrification of Qian as a carefully orchestrated transmedial project braiding together efforts of the state, science and education institutes, private publishers, professional and amateur writers, and the general public.

Lance Gharavi: *The New Transcendence Narrative for U.S. Space Exploration*

Since its genesis in the Kennedy administration, the dominant story driving U.S. space exploration has been the frontier narrative. With roots deeply embedded in U.S. history, mythology, and the religious concept of Manifest Destiny, this narrative has been used to sell U.S. space exploration and, to this day, organizes the thinking of many scientists, engineers, and others directly involved in designing and building space futures. This narrative has been the target of much critique in recent decades for its colonialist framework, yet no new narrative has arisen to compete with it. Until recently. In the 21st century, a new narrative of space exploration has emerged that I will tentatively refer to as the Transcendence Narrative. This narrative—associated with a set of philosophies and social movements including transhumanism, Effective Altruism, Longtermism, and others—is an explicitly apocalyptic vision of the future. In this presentation, I will briefly discuss the narrative and philosophical characteristics of this story, its social connections, and the significance of where it is (and is not) found.

Ujjwal Kumar and Haoqin Zhong: *Exploring the Philosophical Underpinnings: Buddhism and the Possibility of Extraterrestrial (=Alien) Life*

The concept of extraterrestrial life and its relation to Buddhism sparks contemplation regarding the existence of beings beyond our planet. Buddhism, primarily focused on understanding suffering and the nature of existence, does not put much emphasis on the existence of aliens, though the mahabodhisattvas and devas in Trāyastriṃśa (Pāli Tāvātimsa; thirty-three heavens) might have reminded us of the modern concept of extraterrestrial life. Moreover, its philosophical perspectives offer intriguing parallels and considerations when pondering the idea of extraterrestrial life. This paper will explore the intersection between Buddhism and the concept of aliens, emphasizing the multiplicity of worlds in Buddhist cosmology and its implications for contemplating the existence of extraterrestrial beings.

Lukáš Likavčan: *Elemental Mediality of Light: Infrared Waves in Cosmic Information Ecologies*

Situated within the nascent field of outer space humanities, this contribution brings together recent scholarship focused on exploration of media affordances of waves (Greenspan 2023, Helmreich 2023) with the concept of elemental media (Peters 2015, Schuppli 2020), while applying these theoretical elaborations to the context of contemporary space exploration, mostly in the field of exoplanet astronomy (Turrini 2022). By doing so, it poses two key questions: What does exoplanet research tell us about the nature of mediation and information on cosmic scales? How are these insights relevant for conceptualizing human condition in the Anthropocene? Answering these questions, the first part of this contribution introduces research of exoplanet atmospheres using analysis of emission and absorption spectra of infrared light waves (Seager 2010), and it theorizes these light waves as cosmic information infrastructure if sorts, using the vocabulary of elemental media (Jue and Ruiz 2021). The second part of the paper then turns the focus to the discussion of waves as both metaphors and media phenomena, elaborating especially on Anna Greenspan's unique synthesis of media theory with Chinese thinking. The paper then concludes with addressing the human condition in Anthropocene through concepts of human mediality (Likavčan 2023) and cosmic media ecologies.

Evander Price: *Chinese Perspectives on the NASA Voyager Golden Record*

What message should China send into space? What is the best face to show the cosmos? At the Chinese University of Hong Kong, Shenzhen, I introduce my students to the Golden Record, a literal

LP—made of gold—strapped to the Voyagers 1 and 2, launched into space in 1977. The Golden Record contains images, greetings, and most importantly, music, all meant as a collective snapshot of humankind to whoever (aliens maybe?) might retrieve one or the other of these golden gifts in some distant future. Safe in the erosionless vacuum of space, these golden records might very well be the most lasting vestige of humankind into eternity. Such an object is rife with mythical and religious interpretations. As an exercise, I ask my (mostly) Chinese students to propose what they think is missing from the Golden Record and make an argument for what they might add. The actual Golden Record contains only one piece of music from China, “流水”. In this paper, I analyze my students’ responses to this strange, far-flung object, and consider what it means to them to make a Chinese Gen-Z Golden Record.

Tonio Savina: “Sinicizing” the Moon: the Promotion of Chinese Astroculture through Lunar Nomenclature

During the last decade, the People’s Republic of China (PRC) paid particular attention to the denomination of the topographical features on the Moon, submitting proposals of names ‘with Chinese characteristics’ to the International Astronomical Union (IAU), which is responsible for the official lunar nomenclature. For example, after the successful mission Chang’e-4, launched in 2018, a cluster of lunar sites was assigned with Chinese names, such as Statio Tianhe for the landing area and Zhinyu, Hegu, and Tianjin for three small craters around it. In trying to interpret the PRC’s interest in “sinicizing” the Moon, this paper looks at a corpus of Chinese names approved by the IAU between 2010 and 2021 as a sign of Beijing’s search for a national astroculture, a set of space-related practices used to promote national cohesion and to enhance the country’s soft power. The assignation of names to the Moon’s terrain is put in the context of the revival of tradition in contemporary China, showing how this operation is, in fact, the enactment of a practice deeply rooted in Chinese culture – the so-called “art of naming”. In doing so, the paper will also discuss how naming the Moon is an exercise of national power that seems to contradict, symbolically at least, the PRC’s rhetoric against the US, accused of claiming territories on the Earth’s satellite in the context of the alleged “New Moon Race”.

Brad Tabas: The Question Concerning Technology in Outer Space

In 1961, Heidegger proclaimed the dawning of a new era. He called it the “Rocket Age”(2000, 577). He thought Sputnik ruptured the fabric of history, meaning that rockets were not merely a new technology but that they brought a new cosmology. He felt they had so radically changed the relationship between the earth and the celestial sphere that the fundamental distinctions underwriting occidental metaphysics were shattered. That implied that the very relationship between words and world, the poetically generated sense of the order and place of the human with respect to what might be called the whole, were annihilated. As he himself put it: “There is neither ‘earth’ nor ‘heaven’ in the sense of man’s poetic dwelling on this earth. What the rocket’s orbit achieves is the technical realization of what since three centuries has always more exclusively and decisively been framed as Nature and which now stands as a universal, interstellar, standing reserve. The rocket’s orbit pushes ‘earth and heaven’ into oblivion” (2020, 157). The question thus arises: after the loss of heaven and earth, what remains? Moreover, is this cosmological deconstruction planetary, affecting not only western metaphysics but all terrestrial aesthetic orders, including Chinese thought? Is it a catastrophe after all and for all, or merely a re-articulation and an opening? This paper will pursue these questions, foundational for thinking critically about contemporary astroculture, in conversation with Yuk Hui’s presentation of what he calls Chinese “cosmotronics” (Hui 2016, 2020).

Travis Wilkerson, Ding Ma, and Erin Wilkerson: Gaia Theory as a Cosmological Investigation of Buddhist Dharma

Gaia theory, developed by chemist James Lovelock and microbiologist Lynn Margulis, is a hypothesis that the Earth is a self-regulating and complex system of entanglement of matter that works towards the homeostasis necessary to maintain life, questioning the western binary between organic and inorganic and their perceived sentience, or lack thereof. This work was expanded by biologist and anthropologist Donna Haraway's work on "sympoiesis," wherein multispecies entanglement, or the diversity of species working in collaboration, is described as essential for the prevention of mass extinction. Some of these relationships are currently understood, such as lichen as a composite organism of fungi and algae, and the inseparability of rocks and the carbon cycle, but many of these relationships, in regards to microscopic organisms and other scales beyond human visibility, remain unknown, making the extractive policies of the Anthropocene, and accompanying climate change, particularly troublesome. Buddhist dharma's cosmic law provides an opportunity to explore Gaia theory in an expanded scale, looking out towards the cosmos. This can be read alongside physicist and posthumanist theorist Karen Barad's "agential realism" and her investigation of the materiality of nothingness, wherein she describes void as anything but empty. Utilizing Graeme L. Sullivan's practice-led research methodology of collaborative cross-disciplinary invention, this panel will also function as sympoietic inquiry.

Ting Zheng: *Technoecological Eyes: The Compound Eyes in Space and Nature*

In 2018, China started constructing a new radar system called "China's Compound Eye" to observe asteroids and Earth-like planets for planetary defense. Inspired by insects' compound eyes, this system employs an array of smaller radars to extend its reach into deeper space, overcoming the constraints of traditional centralized aperture radar systems. Similarly named, Wu Mingyi's ecofiction *The Man with the Compound Eyes* portrays a natural environment inundated with the detritus of modern material civilization from a non-anthropocentric perspective. Thinking with Latour's actor-network theory, this paper juxtaposes this space exploration radar system with this ecofiction to explore the relationship between human, animal, nature, and space. Focusing on the concept of compound eyes, this paper studies the plural form of vision and the extended vision, investigating how multifaceted perspectives can lead to a comprehensive understanding of complex systems, and how this extended cognition/perception can shape our relationship with environment and space. By drawing a parallel between the planetary defense purpose of "China's Compound Eyes" and the allegorical "man with compound eyes" Wu's fiction—an anthropomorphization of nature/a mosaic vision of nature—this paper argues that how scientific and artistic expressions offer dialectical insights into the dynamic between technology, human, the Earth and beyond.

Mohamed Zreik: *Bridging Traditions: The Confluence of Eastern Philosophies and Space Exploration in China's Contemporary Astroculture*

This paper aims to explore the intersection of Eastern philosophical and religious traditions with contemporary space exploration efforts in China, drawing a contrast with Western narratives in astroculture. China's burgeoning space program, reflecting its rich cultural and scientific heritage, offers a distinct perspective on outer space, diverging from the dominant Western narratives often influenced by Christian ideology and the notion of space as a frontier to conquer. By examining the philosophical and religious underpinnings of China's space endeavors, the paper seeks to uncover how traditional Eastern thought, particularly Confucianism, Taoism, and Buddhism, interplays with the nation's aspirations and ethos in space exploration. This analysis will highlight how these age-old philosophies might inform and shape China's approach to extra-terrestrial exploration, ethical considerations in encountering alien life, and the broader implications for global space norms. The paper will contribute to the dialogue on global astroculture by providing an alternative viewpoint, one rooted in Asian cosmologies and ethical systems, thereby enriching the discourse on humanity's place in the universe and our collective responsibility towards our home planet in the face of space exploration.