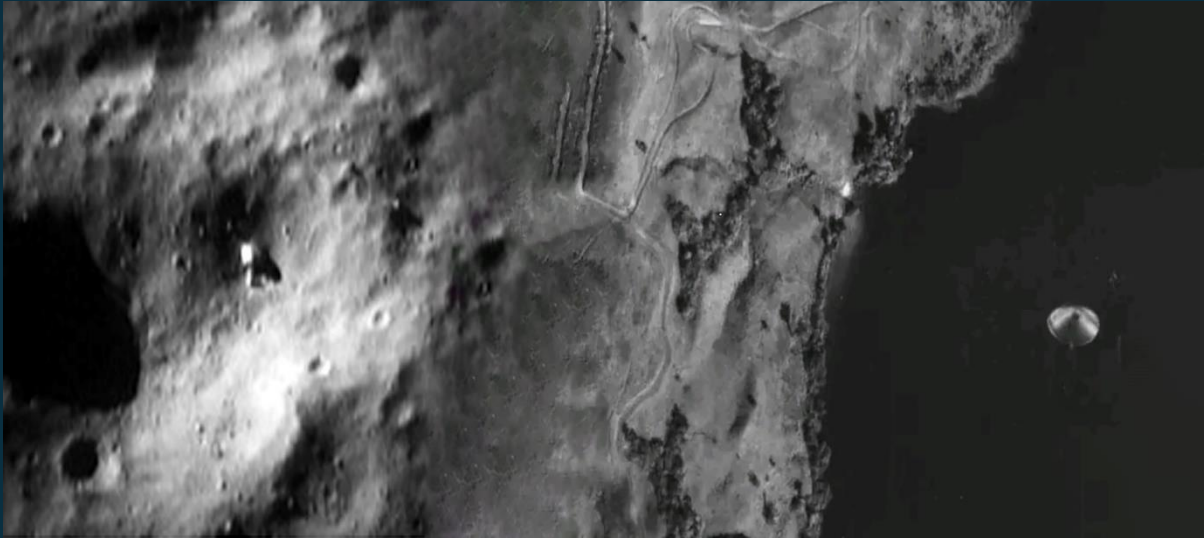


Grounding the SETI and UAP debate: Law, evidence, and anticipated futures



Photomontage: Andreas Müller

International Symposium | Durham Law School
24 April 2025 | PCL 048 | Hogan Lovells Lecture
Theatre and via Teams

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Instituto Geográfico Nacional de Costa Rica (4 Sep 1971) | NASA/NEAR Shoemaker (1 May 2000)

This event will be recorded.

09.00 – 09.30: Arrival of speakers and delegates

09.30 – 11.15: Session 1

Philippe Ailleris

Towards a Systematic Framework for UAP Evidence Evaluation: Introducing The Rainier Scale

Mike Cifone

Down to Earth: Characterizing the landscape of (scientific) UAP studies

Beatriz Villaroel

Searches for Near-Earth Extraterrestrial Artifacts with Hypothesis-Driven Science

Q & A

11.15 – 11.30 Tea and coffee

11.30 – 13.15: Session 2

Chris Senn

Structuring archiving and search parameters for the "Archives of the Impossible" as an example of facilitating coordinated access to historical encounter evidence

Andreas Anton (with Michael Bohlander and John Elliott)

The global survey "Contact with Extraterrestrial Intelligence – A study of projected perceptions and reactions among the world's societies" - First results

Christian Peters

Alien Minds and the Problems of a Political Epistemology of the UAP-Phenomenon

Q & A

13.15 – 14.15: Lunch

14.15 – 16.00: Session 3

Eric Hilgendorf

Contemplating the alien – The impact of SETI on human self-image

Michael Bohlander

Alien encounter narratives in the courts – Part 2: Findings

Jia Wang

Monopolizing high-tech in the hands of powerful humans after contact with extraterrestrial civilizations

Q & A

16.00 – 16.15: Tea and Coffee

16.15 – 17.00: Session 4

Plenary debate

Next steps in research

Closing remarks

Abstracts (in order of presentation)

Philippe Ailleris

Towards a Systematic Framework for UAP Evidence Evaluation: Introducing The Rainier Scale.

In the current, rapidly evolving UAP landscape, the demand for an evidence-based framework has never been more essential. Recent high-profile developments, such as the extraordinary claims made in June 2023 by decorated intelligence official and Air Force veteran David Grusch about the alleged secret recovery of alien spacecraft by the U.S. government, along with legislative drafts addressing the handling of “recovered technologies of unknown origin and biological evidence of non-human intelligence,” underscore the necessity for a structured approach to evaluating UAP evidence. This talk introduces the Rainier Scale, a proposed systematic framework for classifying and evaluating UAP evidence. Drawing inspiration from NASA's CoLD Scale for life detection, the Nine Axes of Merit for Technosignature Searches, and the SETI Rio Scale for evaluating extraterrestrial signals, the Rainier Scale aims to provide a progressive and organized method for categorizing UAP reports. Unlike existing classification systems, such as the Hynek classification, which organizes UFO sightings based on proximity and type of observation, or the Vallée system, which considers both the nature of the sighting and its anomalous features within a broader context, the Rainier Scale prioritizes the evaluation of the evidence itself. This new framework emphasizes assessing the nature, quality, and strength of the available evidence, with the primary goal of establishing what kind of proof is needed to support claims of a potential non-human intelligence origin. By assigning a probability or confidence level to various types of evidence, the scale aims to foster a more rigorous and evidence-based scientific discussion of UAP phenomena.

Mike Cifone

Down to Earth: Characterizing the landscape of (scientific) UAP studies

We will first locate, programmatically, Scientific UAP Studies within UAP Studies more generally, giving the latter specificity as an emergent – and by no means fixed – area of academic scholarship. But then this talk will quickly focus on the former. We will characterize the contemporary landscape of scientific research on UAP in terms of a significant shift away from the more traditional (and more or less informal) forensic-style investigations these phenomena have historically received (which I will call “classical ufology”), to a stricter form of scientific observation (and experimentation) that we should call the “new science of UAP”. This new scientific turn is exemplified by the work of Harvard's Galileo Project and Würzburg's IFEX, both of which favors instrument development and deployment as a foundation for traditional scientific observation and data-gathering; this new science is also exemplified – albeit in interestingly contrastive ways – by the work of Villarroel et al., who quite openly purses a more hypothesis-driven approach to UAP (not unlike the astrobiology or SETI community more generally – two traditional opponents of UFO research and interest). Though we can now begin to understand that the new science of UAP is no longer tied to classical ufology, with its

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reliance on the traditional “case report” as primary data source, and the ensuing “cold case chase” which those reports typically inspire, this new science is nonetheless informed by classical ufology in interesting and important ways. How that is so, and more generally how to understand the relationship between these two traditions, will be the focus of the remainder of this talk. Some remarks oriented in a more philosophical direction – namely, what the conceptual foundations and future prospects of this new science might be, and how this new science might engage with what we might call the “excessive remainder” or the so-called “high strangeness” aspects of some UAP/UFO cases – will bring the talk to a close.

Beatriz Villaroel

Searches for Near-Earth Extraterrestrial Artifacts with Hypothesis-Driven Science

I will present two hypothesis-driven astronomy projects that aim to search for artifacts from non-human intelligence. Both projects, led by Stockholm University in Sweden, focus on identifying possible extraterrestrial objects and artifacts near Earth by searching for fast solar reflections and emissions (flashes) from such objects. The first project, the Vanishing & Appearing Sources during a Century of Observations (VASCO) project, uses pre-Sputnik catalogs to search for E.T. signatures in the pristine sky. We will present some initial results. The second project, ExoProbe, involves a growing network of telescopes in New Mexico to tackle the challenge of contamination from millions of pieces of space debris. ExoProbe aims to detect, validate, and verify any flash from such a probe in the Solar System, localize the object in 3D, characterize the flash immediately with a spectrum, and, ultimately, bring the probe down to Earth.

Chris Senn

Structuring archiving and search parameters for the "Archives of the Impossible" as an example of facilitating coordinated access to historical encounter evidence

The Archives of the Impossible at the Woodson Research Center of Rice University in Houston, Texas began in 2016 with the donation of the research files of Jacques Vallee. Since then, it has grown to include the declassified files of the U.S. Intelligence Community’s Cognitive Sciences Program, reports from UAP experiencers sent to Whitley Strieber and John Mack, as well as the legal research from multiple lawsuits seeking disclosure filed by Larry W. Bryant. This paper will provide a brief introduction to the kinds of evidence that can be gleaned from each of these collections and a discussion of how to utilize university archives of this kind to gather evidence for legal investigations and proceedings related to UAP and NHI communications.

Andreas Anton (with Michael Bohlander and John Elliott)

The global survey "Contact with Extraterrestrial Intelligence – A study of projected perceptions and reactions among the world's societies" - First results

From July to October 2024, we launched an online survey in English, German, French and Spanish, to find out the views of global respondents on a number of scenarios based on different forms of contact with extraterrestrial civilisations. The final tally was 7,441 responses, from which a number of suspected bot replies had to be deducted. The paper will set out the first results from the analysis. The final version will form part of a collection of essays edited by us with Routledge Publishing (tbp in 2026) – working title "Human life after contact with extraterrestrial civilisations".

Christian Peters

Alien Minds and the Problems of a Political Epistemology of the UAP-Phenomenon

This presentation delves into an often-overlooked political dimension of Unidentified Anomalous Phenomena (UAP): By expanding beyond traditional social constructivism, it explores an "epistemology of otherness," asking how social science might begin to conceptualize the intentions, motives, and social structures of non-human entities without imposing human-centred assumptions. A central question is how we might interpret alien behaviours and communications when non-human intelligence may not operate through meaning as we understand it. For social science, which depends on symbols and shared connotations, this challenge reshapes the foundation of interpretation. The presentation investigates the uncertainties in knowledge production—what might be termed "un-seeing"—that arise when alien social, political, or cultural systems don't fit within our own frameworks. Such ambiguity carries substantial risks, as we may misinterpret extraterrestrial actions as hostile due to a lack of shared understanding, potentially intensifying security dilemmas. We will also touch on how insights from exopsychology and evolutionary sociobiology could aid in understanding non-human cognition. These perspectives prompt us to reconsider our theoretical bases and to prepare for the profound ambiguities that contact scenarios could present.

Eric Hilgendorf

Contemplating the alien – The impact of SETI on human self-image

The lecture will deal with the question of what effects an intensified study of SETI could have on current social and ethical debates. Will it lead to alienating effects that shed new light on previously neglected issues, such as our own interaction with other species on Earth? Another interesting question is what effects the debate on SETI and possible modes of behaviour of extraterrestrial intelligences could have on our understanding of artificial intelligence, its opportunities, but also its dangers. Finally, it is important to clarify why dealing with SETI has so often been considered dubious and unscientific and whether there is any prospect of bringing this research more into the focus of established science.

Michael Bohlander

Alien encounter narratives in the courts – Part 2: Findings

Following from the initial concept exposition in the 2023 Durham Symposium “Alien Conversations”, we will interrogate the issue of evidence related to alien encounters in the wider sense through the real-world lens of the theory and practice of judicial decision-making, and of the general principles of the forensic evaluation of witness evidence. “Alien”, rather than “extraterrestrial”, in this context is meant as a catch-all phrase that includes the theoretical possibility of terrestrial but non-human origins of the related phenomena such as UFOs or UAP. The paper will address court cases from different jurisdictions where such encounters have already played a role – focussing especially on the USA due to the relative wealth of material found – including related freedom of information (FOI) litigation, which as such is not our primary concern here but highlights attempts at using the judicial process to obtain better information and hence possibly better evidence for the public debate about the entire topic. We will generically call these scenarios “alien encounters” (AE). FOI litigation aimed at discovery of secret government knowledge is, however, understandable and necessary not least due to the pervasive and stifling effect of the ultimately arbitrary ECREE principle coined by Carl Sagan in the context of SETI, i.e., that “extraordinary claims require extraordinary evidence”.

Jia Wang

Monopolizing high-tech in the hands of powerful humans after contact with extraterrestrial civilizations

Following the ‘contact, impact and response’ model, the chapter assumes a scenario in which human beings have the chance to survive and obtain fundamental scientific knowledge and disruptive technologies after the contact with extraterrestrial intelligence (EI). It discusses how science and technology (S&T) will be maintained and diffused within the societal structures, legal frameworks, and institutions. The literature on the legal landscape after the EI contact is much focused on international public law and human rights. The chapter fills the gap by bringing in the intellectual property law regime. It focuses on the monopoly of patents and know-how, as well as compulsory licensing and waivers that limit the monopoly for the public interest. Analogies will be made between

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the EI contact and the past global-scaled crisis, such as the COVID-19 public health crisis, but to a much greater extent. It assumes that there will be disparities between states, entities, and individuals in obtaining and utilizing the EI-transferred S&T. This paper takes an Asian perspective, particularly in China, where the state plays a dominant role in pushing technological advancement. It points out that globally, the revision of existing protocols and legal frameworks cannot be done by the scientific community alone or remain in the black box and concludes that democratically legitimized political decision-making must be involved at the earliest opportunity.

Biographies (in alphabetical order)



Philippe Ailleris

Philippe Ailleris is a Senior Project Controller at the European Space Agency's (ESA) Space Research and Technology Centre (ESTEC) in the Netherlands. He currently works in the Earth Observation Projects Department, contributing to the Sentinel-1 and CO2M satellite missions as part of the EU's Copernicus Programme. In 2009, Philippe launched the UAP Observations Reporting Scheme Project under the auspices of the International Year of Astronomy, aiming to foster structured data collection. Since 2015, he has been actively involved with UFODATA, a global initiative working to design an extensive

network of automated surveillance stations equipped with advanced sensors, dedicated to 24/7 sky monitoring and physical data collection on UAPs. His forthcoming paper, set to appear in a 2025 academic publication, *The Politics of UFOs*, is titled "Politics and Unidentified Flying Objects at the United Nations: Grenada's Initiatives in the 1970s and Their Contemporary Relevance." The work explores the intersection of international politics and the UFO phenomenon, highlighting Grenada's pioneering diplomatic efforts at the United Nations during the late 1970s. His current research projects include exploring the potential use of civilian Earth Observation satellites for detecting and analyzing anomalous aerial phenomena. Additionally, he is working on developing a new framework for defining the types of UAP evidence needed to support claims of a non-human intelligence origin and assigning a probability or confidence level to such evidence.



Andreas Anton

Andreas Anton studied sociology, history and cognitive science at the Albert Ludwigs University of Freiburg in Germany. He then worked for two years for the political consulting agency Prognos AG in Basel, Switzerland. From 2013 to 2017, he completed his PhD in sociology in a project funded by the German Research Foundation (DFG) on how topics such as parapsychology, occultism, and alternative medicine were dealt with in the German Democratic Republic (GDR). Since 2017, he has worked as a research associate at the Institute for Frontier Areas of Psychology and Mental Health (IGPP) in Freiburg, Germany.

Since July 2023, he has been an Honorary Fellow of Durham University (UK). His current research interests include sociological aspects of SETI research (exosociology) and sociological analyses of conspiracy theories. His latest book publication is *Meeting the Alien: An Introduction to Exosociology* (Springer, 2023).



Michael Bohlander

Michael Bohlander holds the Chair in Global Law and SETI Policy in Durham Law School. He has been the International Co-Investigating Judge in the Extraordinary Chambers in the Courts of Cambodia since 2015. From 2017 until 2022, he was also on the roster of international judges at the Kosovo Specialist Chambers in The Hague. He joined Durham University in 2004, having previously been a life-tenured member of the German judiciary since 1991. He has published over 20 books, more than 160 chapters and articles, and over 60 book reviews, on German law, English and Welsh criminal law, comparative and international criminal law, the judiciary and the legal profession, and Islamic law. His work has been cited over 85 times by and before courts and authorities in several national and international jurisdictions. Since 2020, his main focus has been on the relationship between SETI and human law in the wider sense.



Mike Cifone

Dr Michael C. Cifone is a philosopher of science, specializing in the metaphysical underpinnings of natural science, particularly relativity and quantum theories. He earned his Ph.D. in Philosophy from the University of Maryland, where his work on structuralism and natural philosophy bridged critical inquiries into physics and metaphysics. As an active scholar, Dr Cifone has contributed to leading journals and edited volumes, addressing issues from quantum mechanics to (now) contemporary UAP Studies. He serves as President and Executive Director of the Society for UAP Studies, which he founded alongside *Limina – The Journal of UAP Studies*, to foster rigorous interdisciplinary research in this emerging field. Dr Cifone has taught widely in philosophy, ethics, and logic across various institutions, including the City University of New York and most recently St. John's University in Queens, New York. His recent work explores broadly the conceptual foundations and sociopolitical implications of UAP Studies.



John Elliott

Dr Elliott is an Honorary Research Fellow in the School of Computer Science and the Coordinator for the SETI Post Detection Hub at the University of St Andrews. He has been a leading contributor for SETI (Search for Extraterrestrial Intelligence) post-detection research and development, since the late 1990s. Throughout this period he has served as a member of the International Academy of Astronautics (IAA) SETI Permanent Committee, where he has contributed significantly to the endeavour, via many roles, publications, and initiatives: e.g., Post Detection Task Force, Journal Editor, and IAA Conference Committee. In 2012, with Lord Martin Rees as patron, he co-founded the UK SETI Research Network, of which he is currently the Chair.



Eric Hilgendorf

Eric Hilgendorf is professor of law at the Julius-Maximilians-Universität Würzburg and chairman of the Department of Criminal Law, Criminal Justice, Legal Theory, Information and Computer Science Law. He is the author of numerous books on Criminal law and Legal theory, and editor of the renowned "Handbook of Criminal law" (9 vols). His influential works have been translated into many languages, among them Chinese, English, Spanish, Japanese and Korean. He holds honorary professorships of both Peking Law School and Renmin Law School in China.



Christian Peters

Christian Peters is the Managing Director at the Bremen International Graduate School of Social Sciences. He holds a PhD in political science from TU Dresden and École Pratique des Hautes Études. His research covers religion, politics, higher education, and UAPs. In 2023, he co-authored an article in the Scientific American entitled "It's Time to Hear from Social Scientists about UFOs."



Christopher Senn

Christopher Senn holds M.A. degrees in History (2017) and Religious Studies (2021) and recently received his Ph.D. in Religious Studies (2024) from Rice University. His highly interdisciplinary work explores the spiritual dimensions and psychological effects of emerging technologies, psi phenomena, and communication with nonhuman intelligence.



Beatriz Villarroel

Dr Beatriz Villarroel is a researcher in astronomy at the Nordic Institute for Theoretical Physics (Nordita) in Stockholm. She leads the Vanishing & Appearing Sources during a Century of Observations (VASCO) project (www.vascopeject.org) and the EXOPROBE project. The VASCO project searches for vanishing stars with the help of automated methods as well as a citizen science project. Among the most interesting results from the VASCO project are the findings of anomalous “multiple transients” of unknown origin. EXOPROBE, that is a recently launched project, aims to find and locate an extraterrestrial probe in the Solar System. In 2012, Beatriz Villarroel received a Crafoord scholarship for young astronomers from the Royal Swedish Academy of Sciences for her research about quasars. In 2021, Beatriz Villarroel won the L’Oreal-UNESCO For Women in Science prize in Sweden for the VASCO project. In 2022, she was selected as one of 15 world-wide L’Oreal-UNESCO For Women in Science “International Rising Talents”. In 2023, she gave a TEDx talk in Zurich on the topic “Why we should search for alien artifacts”. In September 2023, she received Heterodox Academy’s Open Inquiry Award for Courage.



Jia Wang

Dr Angelia Jia WANG is an Associate Professor at Durham Law School. She has been a Research Fellow at the Harvard Berkman Center for Internet and Society, the Max-Planck Institute for IP and Competition Law and a Postdoc Fellow at the Law School, Singapore Management University. Her research interests lie in intellectual property law and the intersection between law and technology. She wrote about various emerging technology-related IP issues, such as 3D printing, blockchain, video games, and non-fungible tokenised artworks.