Pufendorf IAS

INSTITUTE FOR ADVANCED STUDIES

Advanced Study Group Application at Pufendorf IAS

Start: February 2026

Title of the ASG: Anomalous Agenda

Members

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Visiting guests (that the ASG plans to invite)	**Affiliation**	**(No contact information necessary)**
Beatrice Villarroel	Nordita, Stockholm University	
Michael Cifone	Society of UAP Studies	

Short description

This Advanced Study Group, Anomalous Agenda, brings together scholars and experts in a range of disciplines, including the natural sciences, social sciences, engineering, design, psychology, and the humanities, to critically examine Unidentified Anomalous Phenomena (or UAP) events in space, air or in water that cannot be explained using current understanding of technology or science. Such phenomena have been recorded since millennia, with accounts being depicted in artifacts from ancient cultures and reported in historical and religious scriptures. Modern narratives are found from the 1800's until present day, with an increasing number of observations being recorded with modern sensor technology and scientific instruments and supported by credible witnesses including pilots, military personnel, officials and the general public.

Despite presence and visibility in popular culture, UAP have historically been excluded from the academic discourse due to social stigma and scientific conservatism. While various governmental, public and military projects have studied the phenomenon since the 1940's, the scientific interest in the phenomenon is only emerging, and there is no consensus regarding the nature or origin of UAP.

This ASG will establish a transdisciplinary working group involving researchers from Lund University, academic affiliates, and public experts. The aim is to assess the scientific, technological, psychological, epistemological, and geopolitical dimensions of UAP through structured dialogue, collaborative research, and methodological development, and to develop a platform for scientific cross-disciplinary study of the phenomenon.

The long-term goal is to develop a shared framework for future UAP research and further a science of UAP, which allows for deeper understanding of the phenomenon, its nature and implications, across relevant fields of science and society, including physics, technology, design, philosophy, medicine, culture, and politics. Activities include invited lectures, workshops and seminars, collaborative publications, and the development of a research agenda suitable for institutional and external funding.

Background and motivation

Unidentified Anomalous Phenomena (UAP) - previously termed Unidentified Flying Objects (UFOs) - have historically occupied a fringe

position in public discourse, often dismissed as pseudoscience or relegated to conspiracy theory and fiction. Despite growing interest from the military and governments around the world during the last 80 years, reliable publicly available knowledge about the phenomenon is sparse. Although academic projects exist have existed since the 1960's, academia has been slow to recognise the significance of the topic.

Examples of university research are starting to emerge, including the Galileo project at Harvard University, USA, and the ADIA project at the University of Würzburg, Germany. Current independent examples based on scholarly research include the Sol Foundation at Stanford University, SUAPS (The Society of UAP Studies), SCU (the Scientific Coalition of UAP Study). In Sweden, investigations are primarily conducted by citizen initiatives and membership organisations. While peer-reviewed academic journals dedicated to UAP are in their infancy (The Limina Journal published by SUAPS being one example), publications are starting to appear in a range of fields providing disciplinary perspectives on the phenomenon, including astrobiology (Shcherbak and Makukov, 2013), astronomy (Bruehl and Villarroel, 2025), aerospace sciences (Knuth et al., 2025), and psychology (Mack, 1994). The academic study of UAP thus remains underdeveloped, especially with an interdisciplinary approach.

Recent developments including formal acknowledgments by the U.S. Department of Defence and NASA that UAP are real phenomena worthy of systematic investigation have legitimised UAP as a subject worthy of scientific investigation. These reports have acknowledged not only the reality of anomalous observations but also exposed the inadequacy of current explanatory models. In a landmark political theory paper, Wendt and Duvall (2008) argued that the taboo against studying UFOs is not simply scientific but deeply political and epistemological. They called for a "social ontology" of the UFO, urging scholars to consider not just the object but how knowledge about it is produced or suppressed. A perceptual shift in relation to the topic is emerging, creating a situation echoing Thomas Kuhn's notion of scientific revolutions, highlighting the inability of current knowledge to provide answers, while offering opportunities for novel scientific paradigms and new models of understanding to emerge.

It is estimated that in the English-speaking part of North America alone, 10,000 eyewitness reports are filed yearly, while around 300 reports are filed annually through the reporting database of UFO Sverige. Frequently occurring estimations reveal that typically, only 5-10% of sightings are reported. Of reported events, those which cannot be explained given our current understanding of physics or known advances in technology, typically vary between 2-6%. As a result, the uncertainty has impacted people's lives, many experiencing frustration and fear, and has raised questions about privacy, security and technology.

While substantial advances in understanding UAP remain to be seen, multiple hypotheses exist with respect to the nature of the phenomenon. These can be described as falling into five main categories:

1. Misinterpretations of prosaic natural phenomena (e.g., astronomical events, meteorological phenomena, wildlife such as birds)
2. Psychological or sociocultural causes (e.g., schizophrenia, hallucinations, imagination, folklore, religious beliefs, native cultural traditions)

3. Unknown or poorly understood natural phenomena (e.g., plasma, earthquake lights, electromagnetic effects)
4. Human-made technology or interventions (e.g., balloons, debris in the air, aircraft, space vehicles, or hoaxes)
5. Non-human intelligence of earthly or extraterrestrial origin (e.g., breakaway or extraterrestrial civilisations)

However, the problem with several of the above explanations is a lack of evidence to support the hypothesis, or inability to explain but a small part of the cases reported by credible witnesses. Documented observational accounts describe events with consistency, detail and accuracy, often supported by documented forensic evidence, which cannot be explained by categories 1-4 above.

At the core of the phenomenon lies the question "Are we alone?" The societal significance of scholarship around this subject cannot be understated, neither can the ontological challenge of knowing whether we are the only intelligent species with presence on Earth.

In short, UAP research is not only about investigating "what is out there" but also about examining the limits of what we know, how we know it, and who gets to decide. As such, it is a uniquely fertile ground for interdisciplinary scholarship that bridges the physical and social sciences, engineering, philosophy, and the humanities.

Main research questions

The UAP topic represents a uniquely multifaceted and truly trans-disciplinary[1] problem, i.e., one which requires the combination of inter-disciplinary scientific approaches with societal stakeholders to co-create knowledge across academic and public domains to solve complex real-world problems. Research questions as well as methodological approaches need to be developed to address a set of fundamental problems faced by the current understanding of the phenomenon. These include, but are not limited to:

The observational problem: How do human perception, cognition, and reporting biases affect the observation and interpretation of UAP events?

Understanding the cognitive and psychological dimensions of human reporting is essential to evaluating eyewitness reports and sensor data and distinguishing genuine anomalies from perceptual errors or psychological phenomena. Methods need to be designed which consider the full range of human experience and sense modalities, while complimenting with technical sensor data to capture and increase reliability of data.

The social problem: What sociopolitical and institutional factors have historically shaped the stigmatization, suppression, or legitimization of UAP research?

The discreditation of the subject was officially instigated with the Robertson Panel report in 1953, with the explicit aim to reduce public interest in the topic. Structural and epistemic barriers have since marginalized UAP studies and created social stigma, which for a long time has prevented scientific

[1] Currently, available knowledge resides primarily outside the academic domain, in the form of public non-peer reviewed publications or classified military or governmental reports.

adoption of the field of study. Safe and trustworthy forms of reporting for civilians as well as active-duty personnel such as pilots or officials is required.

The methodological problem: How can a rigorous, transparent, and interdisciplinary scientific methodology be developed to study UAP phenomena across data types and knowledge domains?

UAP manifest in a variety of ways which often seem inconsistent, posing challenges for the design of methods and systems for signature detection, data capture and analysis. Research should focus on building a methodological framework that integrates empirical data, theoretical models, and cross-disciplinary insights, including methods to study UAP actively.

Objectives for this Advanced Study Group

The primary objective of the study group is to develop an interdisciplinary academic framework for the systematic study of UAP. This includes formulating scientific problems and methods of study to grow the foundation for an academic discipline. Specifically, it aims to:

1. Map the epistemic, political, and technological barriers that have historically excluded UAP from mainstream academic inquiry.
2. Identify and categorise UAP-relevant phenomena based on open-source, governmental, and sensor data.
3. Assess the interpretive models used across disciplines (e.g., physical sciences vs. cognitive science vs. political theory).
4. Develop a theoretical and methodological blueprint for future interdisciplinary UAP research initiatives.
5. Propose institutional pathways for integrating UAP studies into academic curricula and promote scientific discipline development.
6. Adress the social and academic stigma and promote social sustainability by informing public discourse through transparent knowledge dissemination and policy development.

It is expected that the work around these goals is carried out collaboratively in workshop settings to allow for interdisciplinary exchange and collaborative conceptual and methodological development. It is foreseen that the outcome is a plan for future work including projects and topics for study identified through the work in this ASG.

Expertise in the Advanced Study Group

Anders Warell, PhD, professor of Industrial Design at the Department of Design Sciences, explores design and innovation from humanistic, technological and business perspectives through teaching and research. His work in design research focuses on perception and experience of artifacts and systems, user behaviour, human factors, and meaning making. In the field of design innovation, he works with industrial sustainability transition, circular economy, and innovation facilitation, typically in uncertain contexts, described as open-ended, wicked problems. With a background in artistic practice and engineering sciences, his work encompassing explorative, qualitative, and creative approaches of inquiry. He is Director of X-Lab, a collaborative makerspace at the Faculty of Engineering.

Melina Tsapos, PhD, is a philosopher in the Theoretical Philosophy department. Her interests are mainly in epistemology (knowledge and beliefs), philosophy of science and the philosophy of mind. Tsapos's research focus is on conspiracy theories. With a background in cognitive science, she is particularly interested in the empirical research and interdisciplinary approach to studying conspiracy theories. She has written on the negative impact of culturally stigmatized beliefs for scientific research as well as the importance of objectivity in research. She is also interested in cognitive architectures and how we can study beliefs within the predictive processing (and the embodied cognition) framework.

David Dunér, PhD, professor of History of Ideas and Sciences since 2013, manager of research and postgraduate education. My research focuses primarily on the history of science and philosophy in Sweden during the 17th and 18th centuries, the history and philosophy of astrobiology, and cognitive history. I also explore epistemological questions related to the search for life and biosignatures, and I have developed cognitive perspectives in historical research in the books *Tankemaskinen* (2012), *Human Lifeworlds* (2016) and *Cognitive History* (2019). I currently participate in the research program "At the End of the World: A Transdisciplinary Approach to the Apocalyptic Imaginary in the Past and Present".

Jessica Abbott, PhD, is professor of Evolutionary Genetics at the Biology Department, Faculty of Science. Her main research focus is the evolution of sex differences and sex chromosomes in animals, using experimental evolution to test hypotheses linking short and long time scales in evolution. She also has an interest in defining and understanding novel forms of life, including astrobiology, and has previously participated in the Pufendorf theme "A plurality of lives" as well as the "Artificial persons" and "Neobiogenesis" ASGs.

Ulrika Sandén, PhD, is a post-doctoral researcher at Transformative Innovation, Department of Design Sciences. She has a background in social work and is also an author. Her interests are human behaviour and resilience. She has been working with grounded theory, and thus explored behaviour and human relations from the ground up, with as little preconceptions as possible. She has experience in empirical research, specifically in narrative interviews, observations and working with vignettes. As an author she has also worked with making research into popular science.

Alexandra Mouratidou, PhD, is an affiliated researcher at the Centre for Languages and Literature, Division for Cognitive Semiotics. Her research investigates polysemiotic communication, focusing on processes of choice-making and choice manipulation. With a background bridging semiotics, cognitive science, linguistics, and phenomenological philosophy, her work explores verbal and non-verbal mismatches as manifestations of the subtle interplay between embodied perception, expression, and awareness.

Aboma Merdasa, Ph.D., is an Associate Professor of Experimental Medical Diagnostics at the Medical Faculty of Lund University. His expertise is tied to the optical design and construction of spectroscopic imaging systems formal where his body of work demonstrates its applicability in biophotonics, material science and medical applications. He is currently pursuing his research interest in developing novel imaging systems linked with machine learning for non-invasive medical diagnostics in strong collaboration with Skåne University Hospital.

Trond A. Tjøstheim is a researcher in the LU Cognitive Robotics Lab with a background in cognitive science and software engineering. His current research interests include social robotics, computational cognitive neuroscience, the philosophy of mind, as well as the connection between metabolism, emotion, and motivation.

Division of responsibilities and meeting frequency

The ASG will meet at least once a month over a 12-month period, plus conference and seminar events. The core group of researchers at Lund University will primarily meet physically, with complimentary online meetings to allow affiliated researchers to participate. As the research agenda develops, the network is expected to grow with additional disciplines and expertise. Responsibilities of importance for progressing the work will be shared by participating members based on capability and competence, under the overall leadership of the ASG coordinator and co-coordinator.

Anders Warell: ASG coordinator

Melina Tsapos: ASG co-coordinator

Cost frame

Total possible cost frame up to 50,000 SEK. Examples of activities are travel and accommodation for visiting guests, external representation, and purchase of books or other materials.

Activity	**Estimated cost**	**Specification (if relevant)**
Symposium with invited international guests	30,000	
Interdisciplinary workshop and seminars with academia and public experts	10,000	
Books, materials, online conferences	10,000	

References

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Shcherbak, Vladimir I. and Makukov, Maxim A. (2013). The “Wow! Signal” of the terrestrial genetic code. *Icarus* 224, 228–242

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