Welcome to the fifth SCU AAP Conference May 31 – June 2<sup>nd</sup>, 2024 Huntsville, Alabama and held Virtually.



#### **Conference Lead: Rich Hoffman**



The theme of our conference is "Bridging the Gap: Bringing Science, Government and Academia together to Better Understand UAP". You might ask, "Why is this necessary?". For the six decades I have been involved with these phenomena, the stigma associated with the subject has kept these entities apart and not collaborating with each other. Our limited understanding of them has suffered and languished as sharing openly has not happened, until recently.

It has been my lifelong goal to change this trajectory and to get us working together. This conference seeks to do this. It is located just outside of the gates of Redstone Arsenal and the Marshall Spaceflight Center. We have scientists, government, and academia present. Let's get talking.

To help shape the theme, I asked my friend Ross Coulthart, an award-winning journalist, to be our keynote and help shape the narrative we are striving for. He has written about our theme in his book, "In Plain Sight", and has routinely encouraged a broad participation is needed if we ever intend to truly get answers to this continuing mystery.

I also have asked Mr. Alejandro Rojas to be our moderator. Alejandro was our moderator last year and did a super job of creating discussions. Who better to get us all talking and sharing and achieving the objective we strive for. He is masterful.

Thanks to everyone for attending in this incredible event. We hope you will continue to support our work. We are a 501 (c) (3) charity and rely solely on donations to help us host more of these events and to publish our work.

Warm Regards Rich Hoffman

## Alejandro Rojas – Our Conference Moderator



**Bio:** Alejandro Rojas is a UAP (Unidentified Aerial Phenomena) researcher, journalist, and advocate for increased transparency and cooperation among researchers, government agencies, and the public. He is the Head of Research and Content at Enigma Labs and a member of the Scientific Coalition for UAP Studies (SCU). As a journalist, Rojas has written for several publications, including the Huffington Post, Open Minds Magazine, Den of Geek, and the Roswell Daily Record. He is considered an expert on the topic of UAP and regularly appears in interviews with media organizations worldwide. He has also held positions such as official

spokesperson, Director of Education and Public Relations for the Mutual UFO Network (MUFON) from 2007-2009, and Open Minds UFO Radio host.

## Keynote

#### Mr. Ross Coulthart



**Title:** "Will the UAP mystery be mainstream modern science's Galileo moment?"

**Abstract:** Establishment science and even the former AARO boss Dr Sean Kirkpatrick strongly suggest there's nothing anomalous behind the UAP-UFO mystery, that we should all move on and stop making idiots of ourselves for taking it seriously. For years the subject of UFOs/UAPs has been derided and stigmatized. I believe it is time to call out

establishment science for its gravely unscientific reluctance to engage objectively with the available evidence ...in plain sight. As I discovered during my research, there is sufficient evidence even on the public record, including the admissions made by the Pentagon and IC (including David Grusch), and political leaders in Congress, that the phenomenon is real and worthy of intense scientific investigation. I am in no position to assert a definitive scientific conclusion one way or the other about the legitimacy of these scientific claims, but I do believe the era of ridicule and taboo directed at this subject should be put behind us. Science needs to start taking this issue seriously. I began my early investigations with the highly skeptical assumption that what I would uncover behind the UAPs was merely a US or foreign adversary 'black program'. But, with the secret assistance, in part, of Nat Kobitz, the former head of US Navy Science & Technology research, I was introduced years ago to people with knowledge of what is called 'The Program'. I can reveal it was those witnesses who first told me about an intelligence officer named David Grusch. I

found myself investigating what is supposedly a non-existent top secret US program at the same time as the Pentagon UAPTF. As Mr. Grusch asserted under oath to Congress, I strongly suspect this legacy program is real and that knowledge of it is still being actively suppressed in an ongoing aggressive intelligence community disinformation operation. I talk regularly to witnesses, including scientists, who tell me science has been hoodwinked. They are deeply frustrated their brilliant and exciting scientific breakthroughs are being ruthlessly suppressed by the US. They are gravely concerned the US is unjustifiably concealing advanced technology for supposed strategic advantage - even from their Five Eyes allies, including my home country Australia. The longer this alleged cover-up continues, the greater the damage this will cause to public faith in science and institutions of Government. For what we are talking about here is perhaps the greatest secret in human history - potentially, an opportunity to make extraordinary advances in human knowledge. I acknowledge that a journalist is only ever as good as their sources, and we always must concede (albeit unlikely) this whole UAP mystery may be some IC disinformation operation perhaps concealing a terrestrial black world program. But David Grusch's and other witness' allegations need to be properly investigated in a public and transparent way, not default dismissed by science with ad hominem with ridicule or stigma. The scientists I am talking to claim to be part of a long term UAP craft and biologics retrieval program that has been operating in the black for decades both here in the US and I am told the same kind of work is also happening in Russia and China - a new Cold War in exotic technologies. Throughout history, some of the best scientific breakthroughs have come from maverick scientists who challenged the status quo, yet there is a reluctance in mainstream science to even concede the possibility that, as quantum physics already suggests, there may well be explanations for the UAP mystery that can bring the world enormous scientific breakthroughs. I fear this may well be modern establishment science's Galileo moment.

**Bio:** SCU member Ross Coulthart, is a multi-award-winning investigative journalist and author with over three decades experience in newspapers and television, including reporting for Australia's Sydney Morning Herald newspaper, ABC TV's Four Corners, the Nine TV Network's Sunday program and 60 Minutes. He currently works as a special correspondent for News Nation, and he also contributes to the Australian Seven TV Network's Spotlight public affairs program. Trained as a lawyer, he has covered wars, investigated corruption, scandals and public interest stories for over 35 years as one of Australasia's top investigative journalists.

Ross is five times winner of Australia's top journalism prize – the Walkley Award – including the highest award, the Gold Walkley. Ross also earned a Logie, Australian TV's top prize (for best public affairs TV reporting and he won a New York Film Festival Gold Medal for his international investigative journalism.

He's a best-selling author of six books, including the UFO bestseller In Plain Sight: An Investigation into UFOs & Impossible Science. In June 2023, Ross aired his exclusive TV interview with former NRO-NGIA whistleblower David Grusch on News Nation.

Ross has a passion for investigative history. His biography of Australia's First World War official historian Charles Bean in 2015 also won Australia's top literature award, the Prime Minister's Literary Award (for Australian History).

#### **Conference Presenters**

**Kevin Knuth, PhD** 



Title: Science and the Mishandling of Anomalies

Abstract: One of the great strengths of science is its care and conservatism, which ideally is exemplified through the processes of repeatability, which promises to ensure that when science has got things right, it is demonstrably right! However, this strategy faces challenges when the phenomena under study are not reliably repeatable. Things go further awry when the prior probability for a set of hypotheses is much smaller than the hypothesis that the data could be in error. In these situations, no data is sufficient to convince a reasonable person that the unthinkable is taking place. This talk will address theses issues in detail, identify important historical situations in which science got it very wrong, and make suggestions as to how science can do a better job of understanding the

world around us. As Copernicus or Galileo might have suggested, the answer lies in scientists having some amount of humility.

**Bio:** Prof. Kevin Knuth is an Associate Professor in the Department of Physics at the University at Albany (SUNY) and is the Editor-in-Chief of the journal Entropy (MDPI). He is a former NASA research scientist having worked for four years at NASA Ames Research Center in the Intelligent Systems Division designing artificial intelligence algorithms for astrophysical data analysis. He has over 20 years of experience in applying Bayesian and maximum entropy methods to the design of machine learning algorithms for data analysis applied to the physical sciences. His current research interests include the foundations of physics, quantum information, inference and inquiry, autonomous robotics, and the search for and characterization of extrasolar planets. He has published over 90 peer-reviewed publications and has been invited to give over 80 presentations in 14 countries.

http://knuthlab.rit.albany.edu/

#### Matthew Szydagis, PhD



**Title:** "The Latest Scientific News From UAlbany & UAPx"

**Abstract:** In July 2021, physics faculty from UAlbany participated in a week-long field expedition with the organization UAPx to collect data on UAP in Avalon, CA, located on Catalina Island, and nearby. We will present on our first, peer-reviewed publication, which reviews both the hardware/software techniques that this collaboration employed, and contains a frank

discussion of successes/failures, with a section about how to apply lessons learned to future expeditions. Both observable-light and IR cameras were deployed, as well as sensors for other (non-EM) emissions. A pixel-subtraction method was augmented with other similarly simple methods to provide initial identification of objects in the sky and/or the sea crossing the cameras' fields of view. The scientific results based on approximately 1 hour in total of triggered visible/night-vision-mode video and over 600 hours of untriggered (far) IR video, as well as 55 hours of radiation measurements, will be updated and extended, compared to our initial presentation to the SCU. Following multiple explanatory resolutions of many ambiguities, we focus on the primary remaining ambiguity captured about 4 am Pacific Time on Friday, July 16: a dark spot in the visible/near-IR camera possibly coincident with ionizing radiation that has thus far resisted a prosaic explanation. New tests and new results regarding it will be shown, and development of new sensor technologies and algorithms. We will conclude with new, quantitative suggestions for serious researchers in this still-nascent field of hard-sciencebased UAP studies, serving the goal of identifying UAP sans confirmation bias toward either mundane or speculative conclusions.

**Bio:** Dr. Matthew Szydagis received his B.A., M.S., and Ph.D. degrees from the University of Chicago, then worked as a postdoctoral scholar at the University of California Davis. He is now an Associate Professor at the University at Albany SUNY studying experimental particle astrophysics, in particular direct detection of dark matter, as well as general detector development for rare event searches. He was inspired by Star Trek: The Next Generation as a child to become a scientist, and has always been fascinated by the UAP phenomenon, treating it seriously his entire life. Matthew is also an SCU Contributing Member and a Science & Technology Consultant in Dark Matter and Radiation Detection for UAP Expeditions (UAPx) http://uapexpedition.org/#our-team

#### Joshua Pierson, PhD



**Title:** "Detectable Signatures of Unidentified Aerospace Phenomena; Building an Intelligence Picture of Capabilities Through Structured Analytic Techniques"

**Abstract:** Which signatures are most reported during Unidentified Aerospace Phenomena (UAP) encounters? This presentation will look at signatures that were reported across multiple UAP encounters which offer a means of detection. We will discuss the curation criteria and the model to gather, collate, categorize, and analyze data derived from UAP encounters. Employing structured analytic techniques, we can

build a picture of capabilities as they relate to the most reported shapes utilizing profile groups. The primary implication identified as the result of this research project is that UAP emits signatures that are observable through both unaided human observation and technical tools.

**Bio:** Dr. Joshua Pierson is an Active-Duty US Army Warrant Officer with 24 years of service in the Intelligence and National Security field. Joshua has played a major role in educating his superiors and counterparts on the importance of technology protection, and insider threats, and illuminating adversarial capability and intent to target US Interests at home and abroad. Josh's experience with UAP began with his published dissertation for his doctorate. His dissertation is titled "Detectable Signatures of Unidentified Aerospace Phenomena; Building an Intelligence Picture of Capabilities Through Structured Analytic Techniques" where he applied structured analytic techniques to identify common signatures most often reported during UAP encounters.

#### Julia Mossbridge PhD



**Title:** "Working with taboo and fear: What does cognitive neuroscience teach us?"

Abstract: Taboo and fear around UAP research defines rate and type of progress in the field. In this examination of the psychological-social-emotional aspects of the field, Julia will draw on insights from cognitive neuroscience to inform methods of managing this taboo and fear, discussing the neuroscience of suffering vs. pain, motivational circuits, left vs. right and short- vs. long-term thinking processes and how these affect progress in the field.

The aim of the talk will be to inform us all about how to become more effective advocates for responsible and rigorous UAP research in public and private programs.

Bio: Since 2006, Dr. Mossbridge has been leading transformative science, tech, and education efforts for organizations that aim to positively disrupt existing practice moving toward a more inclusive, thriving future for all. Julia is a bold, empathic, and well-spoken authority in "edge sciences" - early-stage research where it can be difficult for anyone, especially women, to excel. Julia is also a beloved founder best known for her compassionate and demonstrative leadership. Dr. Mossbridge's most recent relevant projects include: Creating a Socratic GPT to guide intelligence analysts through critical thinking and intuition-inspiring question trains, leading a diverse team of technologists and designers to create a scalable, self-guided digital "time travel narrative tool" that increases overall wellbeing - especially among people who had traumatic childhoods, conceiving and co-organizing a conference at University of San Diego hosting 30 prominent physicists from around the world to brainstorm technology that can meet the growing need for better foresight, and leading an international group of Al developers and roboticists toward creating an unconditionally loving robot who actually reduced anger and cognitive load in the humans with whom she interacted. She is an affiliate professor in the Dept. of Biophysics and Physics at University of San Diego, a senior consultant with Tangible IQ, the co-founder and board chair of TILT: The Institute for Love and Time. the founder of Mossbridge Institute and an author and co-author of multiple books and scientific articles related to artificial intelligence, time travel and unconditional love. Her post-doc is in cognitive neuroscience (Northwestern U), her PhD is in Communication Sciences and Disorders (Northwestern U), her MA is in Neuroscience (UC San Francisco), and she was awarded her BA in Neuroscience with highest honors (Oberlin College).

#### **Beatriz Villarroel PhD**



**Title:** An Update: A Century of Astronomical Observations from VASCO

#### Abstract:

This is an update to her 2023 Presentation. In this project presentation, I will discuss results from the Vanishing & Appearing Sources during a Century of Observations (VASCO) project, in particular results related to the finding of unexplainable multiple transients in old photographic plates. I will further present the new EXOPROBE project with its searches for extraterrestrial probes using new observations.

**Bio:** Beatriz Villarroel is an astronomer at Nordita in Stockholm. She has a PhD in astronomy from Uppsala University (2017). Since 2017 she is running the Vanishing & Appearing Sources during a Century of Observations (VASCO) project in search for vanishing stars and anomalous transients and is now project leader of the newly started EXOPROBE project, that will search for extraterrestrial probes near the Earth.

#### **Doug Buettner PhD**



**Title:** "Aviation Safety and Recommended Steps to Reduce Space Object Caused UAP Reports"

Abstract: Over the past the several vears. misidentification SpaceX/Starlink of satellites Unidentified Aerospace Phenomena (UAP) by pilots and laypersons has generated unnecessary aviation risk and confusion. The many deployment and orbital evolution strategies, coupled with ever changing sun specular reflection angles, contribute to this gap in space situational awareness. While SpaceX/Starlink and other satellite operators are working on partial mitigations of this novel light pollution for astronomical the community, it is unlikely that these mitigations will resolve the misidentification of Starlinks as UAP for aviators and the public. We will demonstrate a method for identifying if

Starlink satellites were the cause of the UAP. We will conclude with a set of recommendations for the Federal Aviation Administration (FAA) to help resolve this space situational awareness flight safety issue.

**Bio:** Dr. Douglas J. Buettner is the Deputy Chief Scientist of the Acquisition Innovation Research Center (AIRC)—a multi-university applied research center led by the Stevens Institute of Technology. Doug has over 30 years of industry experience in the engineering of aerospace and software-intensive systems for the Department of Defense (DOD) and NASA. He recently joined AIRC after a 20-year career with The Aerospace Corporation. At Aerospace, he was the flight software systems director in their Space-Based Surveillance Division, forming a new department that oversaw the software acquisition for multiple spacecraft payloads, the space vehicle bus, and ground-test simulators in support of a Space Systems Command (SMC) ACAT I program. His recent experience

includes software cost and schedule analysis with software and systems engineering advising to the ACAT I Sentinel Program Office.

Dr. Buettner is an adjunct professor in the University of Utah's Mechanical Engineering Department, teaching space mission engineering. In the past, he also taught software-intensive space systems engineering at the University of Southern California (USC) Viterbi School of Engineering as well as space systems engineering at the University of Colorado, Colorado Springs.

Dr. Buettner spent time in the Pentagon working in the Acquisition Policy Analysis Center (APAC), performing analytical studies directly for the Under Secretary of Defense for Acquisition Technology and Logistics (OUSD(AT&L)).

Dr. Buettner's doctoral research at USC's Viterbi School of Engineering examined issues with DOD software-acquisition strategies, providing insights into approaches for optimizing the cost and schedule for software-intensive system acquisitions. This research is documented in Acquisition Games and Software Defects: Dynamics of the Software Developer's Dilemma.

Dr. Buettner was a consultant for NASA's Jet Propulsion Laboratory (JPL), building JPL's initial aerogel fabrication facility. His hardware automation, flight integration, and terminal ballistics investigations supported planning and concept verification, ultimately leading to the selection of STARDUST as NASA's fourth Discovery mission. Later, he was the principal investigator supporting STARDUST's aerogel fabrication team. The laboratory also produced aerogel for the Mars Sojourner rover insulation, numerous space shuttle flights, and the Mir space station to capture micrometeoroids and characterize space orbital debris.

In the area of Unidentified Aerospace (or Anomalous) Phenomena (UAP) research, Dr. Buettner is the chief technologist for SIGHTER.io, an innovative iPhone application for crowd-sourcing the observation of UAPs to support their identification. He owns property ~1.7 miles from Skinwalker Ranch for doing his own research.

Dr. Buettner has B.S. and M.S. degrees in physics, with a minor in atmospheric science from Oregon State University, and his Ph.D. from USC's Viterbi School of Engineering is in astronautical engineering. He is a Sr. Member of the American Institute of Aeronautics and Astronautics (AIAA) and a member of the Scientific Coalition for UAP Studies (SCU).

#### Mr. Nicholas "Nick" Snell



outdoors.

**Bio:** Mr. Snell is a senior studying Mechanical Engineering at the University of Utah. His goal is to work in the aerospace industry on rocket propulsion systems. When he isn't in the classroom studying rocket science, you can find him enjoying our local Utah Wasatch mountains, where he will either be snowboarding, mountain biking, rock climbing, or just anything that gets him into the

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## **SCU Project Panelist Presenters**

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#### **Doug Kimzey - SCU Database Panel**



**Bio:** A software developer and engineer with more than 30 years of experience with a proven record of accomplishment of developing and deploying software solutions for government and commercial projects.

Past projects include:

- The development of statistical software for the analysis of groundwater data for The United States Environmental Protection Agency.
- Developed "improvit"; a commercial off-the-shelf software for Statistical Process Control for Microsoft Windows.
- Developed the experimental design and mathematical models to predict power costs, water recovery and treatment duration for an electro-kinetic process to de-water and compact oil sands tailings.

- Lead developer of a distributed simulation network to determine critical throughput data for airports, seaports, hospitals, or other facilities used in disaster response plans and exercise planning for both civil and military organizations.
- Member of the development team on a system to consolidate data from multiple military systems to stitch together routes to transport material and personnel from established missions. This system was successfully used to transport radiation suits to inspectors at the Daiichi nuclear power plant in Fukushima, Japan following the 8.9 magnitude earthquake and tsunami on March 11, 2011.

#### **Kimberley Matthews**



**Bio:** Kim is a young entrepreneur and business owner with a deep passion and curiosity for the unexplained. She graduated from Indiana University with a degree in Management and lives in Colorado where she owns and operates an insurance agency. She has been an official member of the SCU since 2023 and serves on the SCU Data Team assisting with project management.

Jon Stombaugh



**Bio:** Jon Stombaugh holds a BA in Folklore and Ethnomusicology from Indiana University. His career over the past two decades encompasses music performance, composition, production, musical theater direction, and audio direction for video games, emphasizing sound design and implementation. In recent years, his focus has shifted towards software development, including the application of machine learning (ML) and artificial intelligence (AI) tools towards the scientific exploration of unexplained phenomena. Currently, he is designing the user interface for the SCU Database project and is honored to be part of the team.

#### **SCU Projects Panel**

#### Mr. Peter Reali - SCU Projects Lead



**Bio:** Scientific Coalition for UAP Studies-Project Development Director and Member of the Board of Directors. Education: BSEE and MSEE from the University of California Berkeley in Statistical Communication Theory, Digital Design Engineering and Computer Science.

I had a long career in Silicon Valley as a director and manager of electrical design engineering projects. Career specialty was in telecommunications, network design and information Technologies and as Director and Engineering Manager for developing communication systems including mobile and PABX telephone systems, FDDI fiber optic ring

networks, T1, T3 and Sonet communication systems. Analyzed and designed analog and digital phase lock loop systems used for network timing synchronization. Responsible for digital design using ASIC and FPGA technologies to implement networking equipment. Originated design concepts that led to two patents involving networking systems.

With an engineering partner started a small company and was president of "Open Solutions" where we received research grants from DARPA and NSF in super computing and distributed computer networks exploring innovative research using open-source networking applications.

Partnered with my wife as a small business owner of two preschools in San Jose California but retired to Boise Idaho in 2011 where I currently enjoy photography as a member of the Boise Camera Club, play blues harmonica with the Boise Blues Society and manage and do research with the Scientific Coalition for UAP Studies [SCU]

# Mr. Robert Powell – Project Lead – Shape, Size, Kinematics, EM Effects and Sound Characteristics Study



**Bio:** Robert has a BS in Chemistry and is a former collegiate debater. He has 28 years' experience in engineering management in the semiconductor industry. While working at Advanced Micro Devices he has taken numerous internal courses related to device physics, design of experiments, and statistical analysis. He helped Advanced Micro Devices develop its first flash memory technology that is used in today's flash cards for cameras, PCs, video cameras, and other products. His experience includes managing a state-of-the-art chemistry laboratory and managing a Research and Development group that worked on nanotechnology using

atomic force microscopes, near-field optical microscopy, and other techniques. Robert is also a co-holder of four patents related to nanotechnology.

Robert Powell is a founding Board member of the Scientific Coalition for UAP Studies (SCU). He was the Director of Research at MUFON from 2007-2017 and created MUFON's Science Review Board in 2012. Robert is one of two authors of the detailed radar/witness report on the "Stephenville Lights" as well as the SCU report "UAP: 2013 Aguadilla, Puerto Rico". He is also the primary author on the recently published paper, "A Forensic Analysis of Navy Carrier Strike Group Eleven's Encounter with an Anomalous Aerial Vehicle" and a secondary author of a paper published in the journal Entropy entitled, "Estimating Flight Characteristics of Anomalous Unidentified Aerial Vehicles." Robert is a member of the Society for Scientific Exploration, the UFODATA project, and the National Space Society. Robert is a co-author of a book published in July 2012: UFOs and Government: A Historical Inquiry and is an author of a book designed for children published in Nov. 2020 entitled, The Truth About UFOs: A Scientific Perspective. Robert currently resides in Austin, Texas.

#### Mr. Larry Hancock – UAP Intentions Studies/Military and Public Domains



**Bio:** Larry Hancock is a graduate of the University of New Mexico, earning his BA with a triple major in history, cultural anthropology, and education. After serving in the United States Air Force, he pursued a corporate career in technical education and technology marketing. Following retirement, he turned to historical research and published several collections of CIA, FBI and military documents prior to writing and publishing a dozen books in Cold War era military, and national security topics including Unidentified / The National Intelligence Problem of UFOs. His role in the Intentions Project deals with the identification and selection of study and control sites as well as the development of the historical context all atomic facilities and military bases.

#### Mr. Ian Porritt – Intentions Study Researcher



Bio: Ian Porritt is a seasoned analyst working in the research and development area with over 30 years of experience in New Zealand / Australia and holds a bachelor's degree from Massey University in New Zealand. Aside from his professional accomplishments, lan is also an amateur astronomer with a passion for helping to unravel the mysteries of the universe. His work in this area has led him to contribute to the discovery of several exoplanets from his home observatory, including a remarkable Earthlike planet orbiting a single star in a binary star system known as OGLE-2013-BLG-0341LBb. Expanding our knowledge on how rocky planets form in binary star svstems.

lan is a valued member of SCU, where he specializes in data analysis, pulling information together and identifying patterns within the data. Recently, Ian applied his expertise in data analysis to co-author the paper UAP Pattern Recognition Study 1945-1975 US Military Atomic Warfare Complex, which has garnered widespread attention and forms the foundation for the ongoing study on UAP intentions. Ian is also an affiliate of The Galileo Project.

#### Gary Stephenson - Gravitational Field Propulsion Research Project



**Bio:** Gary holds a Bachelor of Science in Physics and a Bachelor of Arts in Philosophy from Montana State University, as well as a Master of Engineering in Space Systems Engineering from Stevens Institute of Technology. He has over 30 years of experience as an aerospace engineer with Hughes Aircraft Company, ITT, Raytheon, The Boeing Company, UTC Hamilton Sundstrand, Collins, and Wisk Aero. He holds patents in communication systems and has published in the area of gravitational waves physics for over 20 years. He maintains membership in the AIAA, the AAAS, and the SCU.