



# SearchLites

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The Quarterly Newsletter of The SETI League, Inc.

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## SETI League 2023 Membership Meeting Again To Be Virtual

For more information contact: **Dr. H. Paul Shuch, Executive Director Emeritus**  
(570) 419-1229, or email [drseti\\_at\\_verizon\\_dot\\_net](mailto:drseti_at_verizon_dot_net)

Little Ferry, NJ., 3 September 2022 -- The SETI League, Inc. wishes to inform its members and supporters that, in response to the ongoing COVID-19 pandemic emergency, our Annual Membership Meeting, scheduled for Sunday, 16 April 2023, will again be held virtually. Arrangements are being made to permit SETI League members and supporters to sign on via the Zoom platform at 1 PM Eastern Daylight Time on that date. Those wishing to tune in are asked to email SETI League Secretary Heather Wood not less than two days prior, at [hwood50\\_at\\_aol\\_dot\\_com](mailto:hwood50_at_aol_dot_com), so she can email you logon details in advance of the meeting.

Following our virtual Annual Membership Meeting, the annual Board of Trustees Meeting required per SETI League Bylaws Article V, Section 3 will take place by the same electronic means at 2 PM Eastern Daylight Time on Sunday, 16 April 2023. For those unable to attend, we will post the full minutes of both meetings to the SETI League website and Facebook page, within 24 hours of their conclusion. The Trustees of The SETI League, Inc. pass along to the Membership, and our friends around the world, our best wishes for good health and strength.

- Annual Membership Meeting Agenda
- Call to Order (via Zoom) and Quorum Call
- Minutes of 2022 Membership Meeting
- Financial Report
- Committee Reports
- Old Business
- New Business
- Good and Welfare
- Adjournment

Largely using radio telescopes and optical telescopes, SETI scientists seek to determine whether humankind is alone in the universe. Since Congress terminated NASA's SETI funding in 1993, The SETI League and other scientific groups have privatized the research. Amateur and professional scientists interested in participating in the search for intelligent alien life, and citizens wishing to help support it, should email our Secretary/Treasurer at [heather\\_at\\_setileague\\_dot\\_org](mailto:heather_at_setileague_dot_org), check the SETI League Web site at <http://www.setileague.org/>, or contact The SETI League, Inc. membership hotline at +1 (800) TAU-SETI. Be sure to provide us with a postal address to which we will mail further information. The SETI League, Inc. is a membership-supported, non-profit [501(c)(3)], educational and scientific corporation dedicated to the scientific Search for Extra-Terrestrial Intelligence.

## Black Holes According to Chat GPT by Bill Kitchen

I went to the Artificial Intelligence program Chat GPT, and asked it to write a paragraph on my favorite theory, that everything that goes into a black hole reappears at the big bang.

Remember, Chat GPT at this point knows nothing about this topic, and I asked to it write only 500 words about it. Here was the output. Not a scientific paper, just a discussion. It took all of 20 seconds:

*The question of what happens to matter and energy that fall into a black hole has long been a topic of debate among physicists and cosmologists. Some have suggested that these objects simply disappear, while others have posited that they are somehow preserved within the black hole itself. But recent theories and studies have proposed a fascinating idea - that the singularity in a black hole may actually be the same place as the big bang, the starting point of the universe.*

*At first glance, this concept may seem counterintuitive. After all, black holes are known for their ability to trap matter and energy, while the big bang is the explosive event that created the universe. But as scientists have delved deeper into the nature of black holes and the properties of the universe, the similarities between the two have become more apparent.*

*One key factor is the concept of spacetime. According to the theory of general relativity, developed by Albert Einstein, spacetime is a fabric that is warped and distorted by the presence of matter and energy. This means that objects moving through spacetime will experience a variety of effects, such as time dilation and gravitational lensing. But at the heart of a*

*black hole, the warping of spacetime becomes so extreme that it collapses in on itself, creating the singularity - a point of infinite density and zero volume, and the beginning of time.*

*At the same time, the big bang is often described as an event that occurred at a single point in spacetime, at a time when the universe was incredibly hot and dense. In fact, many scientists believe that the universe began as a singularity, much like a black hole. However, instead of collapsing in on itself, the singularity expanded rapidly, creating the universe as we know it.*

*So what links these two concepts? Some researchers have proposed that the singularity in a black hole and the singularity of the big bang may not only be connected, but actually be the same thing. According to this theory, the black hole's singularity does not represent the end of matter and energy, but rather the beginning of a new universe. As matter and energy fall into the black hole, they are compressed to a point where the effects of gravity become so extreme that they trigger a new big bang, launching a new universe into existence. Perhaps our universe.*

This idea is still in the realm of theory, and there are many unanswered questions and challenges to be addressed. However, it has opened up exciting new avenues for exploration and could potentially provide a new understanding of the fundamental nature of the universe. It is a fascinating and thought-provoking concept, one that challenges our assumptions and invites us to explore the mysteries of the cosmos.

How long before we will be conversing with an algorithm like this every time we make a call that was diverted to a call center? And, when we finally make contact with ETI, will we be conversing with it's version of Chat GPT?

## The Unwelcome Reply

Fiction by Andrew Fraknoi

from the 20 December 2019 issue of Sci Phi Journal  
<https://www.sciphijournal.org> used by permission

Trans-World Science Foundation Director Hayashi Itokawa was known for getting down to business. “Dr. Kaufmann,” he asked as soon as his guest had sat down, “How sure is your team that you have interpreted the message correctly?”

Bill Kaufmann tried to compose himself and not start with the first sarcastic response that came to mind. As if his team had not spent hours going through all the ways they might have gone wrong before ever putting together that damn report!

What he replied was, “Well, as you can imagine, the team was asking itself that question regularly. As we explain in our report, we had the best civilian and military code-breakers form three teams and work separately. All came up with essentially the same interpretation. The damn aliens made it easier by using many of the characteristics of the old message from Earth that they picked up.”

Thinking this was still a bit strong, he added, “Director, I know this message is not what anyone was waiting or hoping for. We have struggled with other possibilities, including the suggestion by Dr. Kavanaugh that it’s a practical joke or initiation prank played by an older civilization on a naïve younger one. With this in mind, we have been waiting to see if the message changes to some other contents. But this is all they keep sending, month after month.”

He paused, but decided to say a bit more, “Still, the message is of enormous scientific value. Provided it’s on the level, it not only tells us we are not alone in the Galaxy, but helps us calibrate the frequency of intelligent life for the first time. And it strongly implies that technological life is more common than even the most optimistic interpreters of the Drake Equation ever thought.”

Itokawa did not look the least mollified. “Yes, but to send such a reply. Did they not realize its effect on the morale of the recipients?”

Kaufmann knew what he meant. His assistant had spent many hours online and considerable sums buying sweet snacks at the Farside Bakery. Anything to cheer up his team as the analysis continued. “Director, the team’s best answer to that is to point to all the species of life we have allowed to go extinct on Earth. Sometimes, in our rush toward progress, it’s easy to forget where we came from.”

“But those were animals or plants. Here we are talking about species that have constructed advanced radio telescopes and built up an understanding of astronomy. Don’t these creatures have a feeling for the harm such a message can do?”

Kaufmann’s team had debated that question from many angles. The easiest answer was to point to analogous human behavior, of course, but everyone had assumed that interspecies behavior would be guided by the better angels of everyone’s nature.

“Director, I know what you mean. We all felt that way. But they may simply value truth more than the niceties of conversation.”

Itokawa looked at him for a while before speaking. With a flick, he brought up the message up on the tri-d platform next to his desk. “And what niceties of conversation do you suggest I use when I show this to the Director-General and the Council?”

Kaufmann knew Itokawa’s reputation well enough to realize that he was not just making a point about the situation they were in, but genuinely trying to find a way out of what would be a politically hazardous meeting for the Foundation. Trans-World Director-General Agrawal was actively trying to build a “good news administration” after all the years of bad news that the Earth and its colonies were just learning to reverse. The human species was only now emerging from decades that had demanded enormous societal and personal sacrifices.

“I wish I had an easy answer to that. I would stress the good news about our not being not alone... Even if our place in the scheme of things is perhaps not as we would want it to be.

After a moment, he added, “And this discovery means the investment in the array of radio dishes on Farside has been justified.” As soon as he said it, he realized how petty and self-serving this sounded.

Itokawa sighed, and said, “Dr. Kaufmann, I know there is a long tradition that warns us not to blame the messenger for the message. It’s not your fault, or the team’s fault, that this is the first reply we got. Maybe we shouldn’t have sent messages a century ago to all those possibly habitable planetary systems. Still, you can’t blame me for wishing that this answer had come at a different time.”

“No sir, Kaufmann replied, “but there really never would have been a good time for this message, would there?”

Itokawa didn’t seem to have an answer for that, so he simply turned to the tri-D. Together they read again the first alien message humanity had ever received:

*Dear Intelligent Beings,*

*We have received your transmission. Your message is important to us. Regrettably, your message has arrived at an unusually busy period. Many messages have reached us from the outer parts of the Galaxy at approximately the same time. We answer all messages in the order they are received, and will respond to yours as soon as our staff has the time. Currently, wait times for a response are approximately 500 orbital periods of your planet.*

## Event Horizon

SearchLites readers are apprised of the following conferences and meetings at which SETI-related information will be presented. League members are invited to check our World Wide Web site ([www.setileague.org](http://www.setileague.org)) under *Event Horizon*, or email to us at [info@setileague.org](mailto:info@setileague.org), to obtain further details. Members are also encouraged to send in information about upcoming events of which we may be unaware.

Please note that the global COVID-19 pandemic has resulted in the cancellation or rescheduling of many planned scientific meetings and conferences. We recommend you check with the event sponsors for updates before making travel arrangements.

**April 16, 2023, 1 PM EDT:** *SETI League Annual Membership Meeting*, virtually, via the Zoom platform.

**June 19 – 22, 2023:** *Second Penn State SETI Symposium*, State College, PA.

**August 23 - 29, 2023:** *81st World Science Fiction Convention*, Chengdu, China.

**September 25 - 29, 2023:** *74th International Astronautical Congress*, Baku, Azerbaijan.

**October 11 - 18, 2024:** *75th International Astronautical Congress*, Milan, Italy.

**August 8 - 12, 2024:** *82nd World Science Fiction Convention*, Glasgow, Scotland.

**September 29 - October 3, 2025:** *76th International Astronautical Congress*, Sydney, Australia.



SETI League members are encouraged to nominate SETI-relevant websites for our monthly SETI SuperStar Award. Nominating emails to our Awards Committee may be sent to:

*Awards\_at\_setileague\_dot\_org*

Please be sure to indicate the URL of the candidate website you are nominating, and a brief explanation as to why you consider the site worthy of recognition.

## Special Projects Report

My name is Scott Carter and my amateur call is VE3CGN. I am the Special Projects Coordinator for SETI League and I operate Project Argus SETI Station EN92gp.

I recently started a SETI Community on the Discord messaging platform and am hoping to build a central message area where we can collaborate and share information about SETI (Search for ExtraTerrestrial Intelligence). Whether you are a SETI League member, are new to SETI or if you are interested in building a ground station to participate in SETI League's Project Argus we would value your participation.

An invite to the Discord Server can be obtained by emailing me at [search@setidata.ca](mailto:search@setidata.ca) and I will reply with a link. I hope to see you on-line!



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**Annual Renewal: Is This Your Last *SearchLites*?**  
SETI League memberships are issued for the *Calendar Year*. Please check the expiration date indicated on your mailing label. If it reads December 2022 or earlier, you have already expired, and *must* renew your SETI League membership **now!** Please fill out and return this page along with your payment.

**Please renew my membership in this category:**

Full Member	\$50 / yr
Supporting Member (elderly, retired, or disabled)	\$35 / yr
Scholarship Member (full-time students only)	\$25 / yr
Household Member (same address as a Full Member)	\$15 / yr
Household Life Member (same address as a Life Member)	\$300
Life Member (until we make contact)	\$1,000
Sustaining Life Member – a generous <i>annual</i> pledge of:	\$1,000 / yr
Patron (priority use of The SETI League’s radio telescope)	\$10,000
Director (Patron membership plus seat on advisory board)	\$100,000
Benefactor (a major radio telescope named for you)	\$1,000,000

Annual memberships are issued for the calendar year. Those processed in January through April expire on 31 December of that year. Those processed in September through December expire on 31 December of the *following* year. Those members joining in May through August should remit half the annual dues indicated, and will expire on 31 December of the same year.

**Pleased to Accept PayPal**

The SETI League invites you to pay your membership dues and additional contributions via credit card, using the PayPal online payment system. Simply log on to [www.paypal.com](http://www.paypal.com) and specify that your payment be directed to [paypal@setileague.org](mailto:paypal@setileague.org).

Name: \_\_\_\_\_

**Order Your Membership Premiums:**

	(u)*	(o)*
Pocket protectors	\$ 3	\$ 4
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<i>Tune In The Universe!</i> (CD-ROM)	\$25	\$30
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<i>Proceedings of SETICon04(CD)</i>	\$15	\$18
<i>SARA Conference Proceedings:</i>		
2006, 2007, 2008, 2009 (specify)	\$20	\$27
<i>SETI League Technical Manual (CD)</i>	\$10	\$13
<i>Project Cyclops 2<sup>nd</sup> Edition</i>	\$20	\$30
<i>The Listeners</i> by James Gunn	\$15	\$21
<i>Sing More Songs of SETI</i> (Songbook)	\$10	\$13
<i>Sing a Song of SETI</i> (music CD)	\$15	\$18
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SETI Nerd Gift Set (one each Mouse Pad, Pocket Protector, <i>Project Cyclops</i> and <i>Tech Manual</i> ) at 20% Savings to <u>Members Only</u> :	\$30	\$45

**\*Includes postage to (u) US addresses, or (o) other locations**  
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