European Solar and Energy Storage Solutions

Dyson sphere black hole solar power generation

Overview

One possible way to obtain energies on astronomical scales is with a Dyson sphere. This is a structure surrounding an energy source like a star or a black hole, capturing the sources'.

Originally, Dyson spheres were envisioned to surround a single star and provide energy to a civilization somewhere between type I and type II. To go beyond type II, though, you need a different source. Todays' authors.

Dyson spheres could be detected directly by finding sources that are dimmer than expected. For example, this astrobitedescribes how the Gaia satellite is used to search for Dyson spheres around stars. If there is a Dyson.

Can a Dyson sphere be built around a black hole?

A Dyson Sphere, a spherical structure that surrounds a star and transports its radiative energy outward as an energy source for an advanced civilisation, is one of the main targets of SETI. In this study, we discuss whether building a Dyson Sphere around a black hole is effective.

What is a Dyson sphere?

This is a structure surrounding an energy source like a star or a black hole, capturing the sources' energy. One example would be a sphere around the sun made up of solar panels, which capture all the sun's light. The most popular type of Dyson sphere is a Dyson shell, which completely encases the source.

Can a Dyson sphere obscure a star?

If there is a Dyson sphere around a star, it would partially obscure the star, making it appear dimmer. However, this is not really an option for the Black-Hole Dyson spheres, because we do not know how bright the accretion disk of a black hole is. Suppose black hole A has an accretion disk 10 times as bright as black hole B.

Can a Dyson sphere transmit energy remotely?

Inoue & Yokoo (2011) discussed the energy transmitted remotely from a Dyson sphere to a Type II civilization’s habitat. In their result, the possibility to detect the transmission of a |$1\, {\rm \mu as}$| energy beam is less than 10 −23. For a stellar-mass black hole, the possibility becomes smaller.

Could infalling matter power a Dyson sphere?

The most promising ways infalling matter could power a Dyson sphere described in the paper are radiation by accretion disks and relativistic jets. Accretion disks form around any black hole that is currently “feeding”. The matter falling onto the black hole creates a disk-like structure that rotates around the event horizon.

Are there any potential Dyson spheres?

Of the five million energy sources they looked at, the researchers zeroed in on seven as potential Dyson spheres. “All sources are clear mid-infrared emitters with no clear contaminators or signatures that indicate an obvious mid-infrared origin,” they write, adding that these sources are still just candidates.

Dyson sphere black hole solar power generation

Exploring the Dyson Sphere: Could We Harness a Star's Power?

4 ???· A Dyson sphere is a hypothetical megastructure proposed by physicist Freeman Dyson in 1960. The idea involves building a massive shell or swarm of satellites around a star to ...

Black holes surrounded by massive, energy-harvesting ...

According to the researchers, the waste heat signal from a so-called "hot" Dyson sphere--one somehow capable of surviving temperatures in excess of 3000 kelvin, above the melting point of known metals--around a ...

Help me understand solar sails and energy generation early game.

The Official subreddit for Dyson Sphere Program, a sci-fi management game by Youthcat Games and Gamera Game. your sail production/launching rate, or both, so you can increase your ...

Tips for getting to 1TW power generation : r/Dyson_Sphere...

My personal goal for the game is to get a sphere with 1 TW generation. So for starters I've moved my sphere setup to an O type star with 2.5x lumination. In terms of the dyson sphere rockets, ...

I Finally made it to my Neutron Star! : r/dysonsphereprogram

It's small. Only half the radius of my starter star. Therefor, Dyson Sphere will be small. Therefor, not as much power generation. It's not as luminous as it seems. It's less luminous than my ...

Seeds with nearby Neutron Star AND Black Hole AND White Dwarf

The Official subreddit for Dyson Sphere Program, a sci-fi management game by Youthcat Games and Gamera Game. Lead the future of humanity and harness the power of stars by building ...

Swarm for a black hole! : r/Dyson_Sphere_Program

Well, I don't know the math behind the generation of energy for a Dyson Sphere, but the luminosity of a black hole in the game is about 1/5 the luminosity of the first star My guess is that a Dyson sphere in a black hole does not worth the ...

How would a black hole power plant work?

The efficient way to extract energy from a black hole is to extract its rotational energy. 20% 1 of a (rotating) black hole's mass-energy is in the form of rotational energy. This energy is not stored inside the black hole, rather it is stored in the ...

Mid-Game Questions: Transitioning to Logistics : r/Dyson_Sphere...

Dyson Spheres are huge power generators, and eventually you'll be more limited by how many receivers you can put down than you are by how much your star can output. as opposed to ...

Alien 'Dyson spheres' could be harvesting the power ...

Technologically-savvy aliens could be powering their society using a hypothetical megastructure called a Dyson sphere to harvest energy from a black hole.And the sphere might radiate in peculiar

r/Dyson_Sphere_Program on Reddit: Hard and fast rule on Solar ...

The Official subreddit for Dyson Sphere Program, a sci-fi management game by Youthcat Games and Gamera Game. Now in Early Access! Lead the future of humanity and harness the power ...

Advanced Civilizations Could be Using Dyson Spheres ...

One potential solution would be a Dyson sphere - a type of stellar mega engineering project that encapsulates an entire star (or, in this case, a black hole) in an artificial sheath that captures all of the energy the object at ...

Contact Us

For catalog requests, pricing, or partnerships, please visit: https://ssab-proiect.eu