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HYPER-SETI – A NEW WAY OF SEARCHING FOR EXTRATERRESTRIAL INTELLIGENCE

Abstract

In this paper a new way of searching for extraterrestrial communication is proposed by using a unique combination of a new search strategy and modern technologies such as machine learning, which is called “HYPER-SETI”.

HYPER-SETI presumes, that extraterrestrial civilizations, who are technologically more advanced than ours do not communicate by means which is used by the classical SETI instruments, namely search for artificial and decodable signals in different wavelengths of the electromagnetic spectrum. Effective communication is obviously not possible (even though principally possible) because of the limiting speed of electromagnetic waves. This may be the main reason, why we don’t “hear” or “see” anything up to now. The absence of such an intelligent signal is not necessarily due to the non-existence of intelligent life but simply due to the unsuited technology we use for the searching. Our communication devices are simply incompatible for an effective interstellar communication. Even if there are some other civilizations, who use similar techniques for communications, the chances to find and even communicate with them are small, at least due to the huge distances.

HYPER-SETI takes a new approach, not repeating, what did not find any results up to now. It rather starts with the question, which type of technology would be necessary for effective interstellar communication and what is maybe more important, would it be possible for us to detect signs or side effects of such a new and fantastic technology? Although, we obviously don’t have such a technology yet, we can start with describing, which properties it should have and see, if there is a possibility to observe traces of such communications between others, even if we are not able to directly interfere with it. So, we do not necessarily have to detect or understand the communication itself, but at the beginning it might be sufficient to discover side effects or accompanying phenomena, which are observable to us in a conventional way using conventional sensors but advanced information technologies. As this type of communication technology has to be unknown to us, attendant circumstances must appear also unknown or unexplainable to us, otherwise it was something we already know.

Thus HYPER-SETI proposes to start intentionally searching for strange and unknown phenomena’s within the electromagnetic spectrum, which might be signs of communication, instead of searching for the communication itself. This typ of search can nowadays be supported by methods of machine learning and artificial intelligence.