40th SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The Next Steps (A4)
SETI I : SETI Science and Technology (1)

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SIGNATURES OF MACHINE INTELLIGENCE

Abstract

In Dr Shostak's paper "What ET will look like and why should we care" (2010), he highlights "our anthropomorphic bias about extraterrestrials" and the implications of post-biological intelligence on SETI search strategies. Although the rationales behind searches to detect non-biological sentience are not our concern in this paper, our remit is to investigate the likely signatures and contrasting structures such non-biological communicators may present.

In the event a signal is detected, our initial categorization and assessment will focus on analyzing comprising constructs, to ascertain whether structures indicate signs of information content; a fundamental signature of intelligence. To ensure our systems are capable of encompassing such intelligent communicators, we need to investigate both the contrasts and similarities of such non-biological communication and how this extends the known spectrum.

To enable this, we present initial findings from investigating a range of known machine communication phenomena and discuss how such contrasting forms of information exchange can aid, extend and refine our detection and decipherment capabilities.

Shostak, Seth (2010) What ET will look like and why should we care: Acta Astronautica, v. 67, issue. 9-10, p. 1025-1029. Elsevier Press 2010AcAau..67.1025S