

47th IAA SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) –
The Next Steps (A4)
SETI 2: SETI and Society (2)

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A CRITICAL REVIEW ON THE ASSUMPTIONS OF SETI

Abstract

The Search for Extraterrestrial Intelligence (SETI) makes certain assumptions which guide all current search programs. To illustrate some, this includes (1) that interstellar flight is not possible (2) that the motivations of interstellar cultures are based largely on anthropomorphic understandings of homo sapiens (3) that the Fermi Paradox and the Drake equation are the starting point (axioms) of all reasoning (4) that definitions of 'life' are based largely on our understanding of homeostasis (5) that radio waves are the most likely method of interstellar communications (6) that unknown single event source signatures detected in space are not amenable to scrutiny due to the demands of the scientific method to be reproducible (7) that such anomalous signatures are either astronomical or communications based in type, with no consideration for emissions from advanced industrialisation or propulsion and power technology. These assumptions, and others, have guided the SETI community towards a constrained level of thinking that is equivalent to philosophical dogma. In this paper, we unpack these assumptions, and others, and argue that the potential for life and intelligent life in the Cosmos, is much greater than the SETI community currently appears to conclude. It is also argued, that more progress in our understanding of our place in the Cosmos, can be made, if the separate disciplines of astronomy, interstellar spacecraft design, SETI, biology and philosophy can work together in a complimentary way.