

40th SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The
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Author: Prof. Alexander Ollongren
Leiden University, The Netherlands, a.ollongren@umail.leidenuniv.nl

LARGE-SIZE MESSAGE CONSTRUCTION FOR ETI LOGICAL EXISTENCE EXPRESSED IN
LINGUA COSMICA

Abstract

In the art and science of constructing interstellar messages of considerable size, designers inevitably will come across the problem of how to express existential issues. When for instance aspects of human societies are to be expressed in formal terms, issues of this kind turn up. They appear in explaining to Extra Terrestrial Intelligence what objects (abstract or concrete) in our world exist and their mutual relations, and in the way things in our world are perceived by us. In applying a Lingua Cosmica for descriptions of this kind, one expects the availability of a form of ‘some’, the logical existence quantifier. The concept of logical existence does occupy a central position in the author’s linguistic LINCOS system – but the mentioned quantifier is not explicitly present. The present paper explains the reasons for this and gives alternatives. In addition a solution is presented for the non-trivial problem of expressing non-existence. The LINCOS system has been developed for the purpose of interstellar communication between intelligent species in the Universe. The present paper is part of a sequence of studies on a wide range of aspects in the topic of large-size message construction for ETI.