

RECENT WORK ON ALGORITHMIC INFORMATION THEORY

Abstracts of Papers, 1977 IEEE International Symposium on Information Theory, October 10–14, 1977, Cornell University, Ithaca, New York, USA, IEEE Catalog No. 77 CH 1277–3 IT, p. 129

RECENT WORK ON ALGORITHMIC INFORMATION THEORY, Gregory J. Chaitin (IBM Research, Yorktown Heights, NY 10598).

Algorithmic information theory is an attempt to apply information-theoretic and probabilistic ideas to recursive function theory. Typical concerns in this approach are, for example, the number of bits of information required to specify an algorithm, or the probability that a program whose bits are chosen by coin flipping produces a given output. During the past few years the definitions of algorithmic information theory have been reformulated. We review some of the recent work in this area.