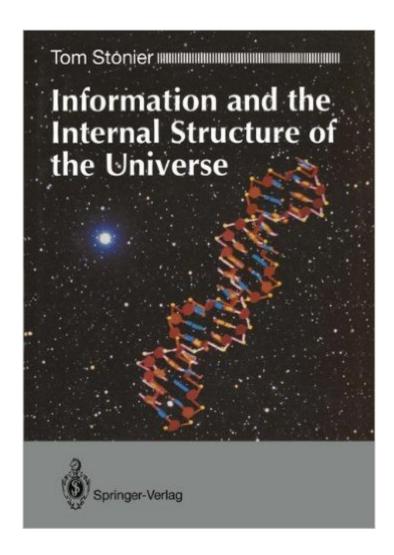
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Information And The Internal Structure Of The Universe: An Exploration Into Information Physics





Synopsis

The first of a planned trilogy, this book examines the proposition that "Information" is as much a part of the physical universe as energy and matter. The acceptance of such a proposition has profound implications for the physical sciences; it also lays the foundations for a general theory of information. This book is directed firstly at researchers in information theory and scientists in other disciplines. However, its relatively non-mathematical nature and accessible writing style place it at the "scientific" end of the spectrum of popular science books. A general theory of information will emerge in the second volume; the third will examine the mechanism and evolution of human and machine intelligence.

Book Information

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Customer Reviews

Author introduces a conceptual framework to approach information at the natural science (physics) level and shows various examples and ideas to quantify as well as compare "meaningful" information content and organization in physical systems and elements. It brings ideas from thermodynamics and biological systems and develops seed ideas mentioned by Werner Heisenberg in his seminal book "What is :Life?". Earlier review from Glenn appears to have been written without reading the book or based pre-conceived notion. The objection raised is completely and thoroughly addressed in pp. 56 - 59 and is accessible to anyone with basic understanding of physics and math.

Entropy is not disorder; this has been demonstrated many times for those interested. It cannot be negative, it can only decrease, it is a state function difference. It is not the negative of information,

which is not a new force but requires an interpreter/recognizer. The comment that Shannon confused the situation by attributing randomness with maximum information has some truth but belies the fact Shannon was able to equate the rate of information transmission with a reduction of uncertainty to the receiver, a subtle but critical fact explained elswhere as I have referenced many times. The book is wildly overpriced which is the real clue.

For a reader familiar with basic math, this book contains an interesting introduction to the idea that information is as real and as important to science as energy is. It's easyto read.

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