

Exzerpt zu:

„Entropy in thermodynamics and information theory“

From Wikipedia, the free encyclopedia

Preview:

Äquivalenz zwischen den zwei Entropies.

Questions:

1. wann sind die zwei entropies äquivalent?
2. Was ist dann der tatsächliche Unterschied?
3. Ist die Information ein physikalisches Konzept?

Read:

Online unter:

http://en.wikipedia.org/wiki/Entropy_in_thermodynamics_and_information_theory

Reflect:

Zu knappe Information, und ohne beispiele und überhaupt kein Beweis.
Stellt aber trotzdem ganz interessante fragen zum forschen.

Recite:

- *“The logarithm can also be taken to the natural base in the case of information entropy. This is equivalent to choosing to measure information in nats instead of the usual bits. In practice, information entropy is almost always calculated using base 2 logarithms, but this distinction amounts to nothing other than a change in units. One nat is about 1.44 bits.”*
- *“The information entropy H can be calculated for any probability distribution (if the "message" is taken to be that the event i which had probability p_i occurred, out of the space of the events possible). But the thermodynamic entropy S refers to thermodynamic probabilities p_i specifically”*
- *“In fact one can generalise: any information that has a physical representation must somehow be embedded in the statistical mechanical degrees of freedom of a physical system.”*

Review:

Man kann die zwei formen mathematisch total ähnlich darstellen aber hat das physikalische Bedeutung?