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ergy is needed if you want to change shape to a material obje



## change dynamics



d system a shape change that implies an increase of shape e arily at expenses of a decrease of the free energy available. ( we want to perform a shape change that implies a net shape n't think this paper is saying very much---obviously if the uses sists of a giant set of boxes and indistinguishable things to boxes, then some configurations are more likely than other ng that shape is configuration, or information, doesn't ad hing from a formal or cognitive or even causal point of vi

## :

is is a pretty much simplified description... The universe IS lementary particles) that fits into boxes (fundamental field



e phrase: "the tendency of a shape to change into anot ntaneously" is definitely odd, since they don't, typically he macro scale...).

## do! All the time... how comes that the referee is not aware

paper interprets Shannon's notion of information and ost obligatory) the concept of entropy from thermodyr context of shapes and defines in a more or less obviou cept of "shape entropy". (...) The relationship between modynamics and Shannon's information theory has b austively investigated.

ly... physicists are still struggling to do experiments about i

with basically the same idea it would be possible to w "Smell is physics", "Dance is physics", "Melody is physic igher probability of occupation for . This is equivalent to resetting the oject to s1a.



 $S_{1a} - S_I = -8$  bits

 $K_B T \ln(2) \Delta S = K_B T \ln(2) 8 = 2.3 \ 10^{-20} J$ 

pest candidates for such a test?

llows for large N differences (Q scales with log(N)). These co ale systems where damping properties play an important role experimental and theoretical results, the physical mechanism