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Entropy growth in the early universe and confirmation of initial big bang conditions (Why the quark-gluon model is not the best analogy) ANDREW BECKWITH, Amerian Institute of Beam Energy Propulsion — This paper shows how increased entropy values from an initially low big bang level can be measured experimentally by counting relic gravitons. Furthermore the physical mechanism of this entropy increase is explained via analogies with early-universe phase transitions. The role of Jack Ng's revised infinite quantum statistics in the physics of gravitational wave detection is acknowledged. Ng's infinite quantum statistics can be used to show that $\Delta S \approx \Delta N_{gravitons}$ is a starting point to the increasing net universe cosmological entropy. Furthermore, we compare the increase in relic gravitons with "chilled neutrinos" generated as of at the start of the pre CMBR era, before CMBR "turned on" roughly 400 thousand years after the big bang.

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