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**Big Bang Nucleosynthesis with a non-Maxwellian distribution** JOHN FUQUA, CARLOS BERTULANI, Texas A&M University-Commerce, M.S. HUSSEIN, Universidade de Sao Paulo — The cosmological big bang model is in agreement with many observations relevant for our understanding of the universe. However, comparison of calculations based on the model with observations is not straightforward because the data are subject to poorly known evolutionary effects and systematic errors. Nonetheless, the model is believed to be the only probe of physics in the early universe during the interval from 3-20 minutes, after which the temperature and density of the universe fell below that which is required for nuclear fusion and prevented elements heavier than beryllium from being formed. Here we consider primordial nucleosynthesis predictions with modified (Tsallis) statistics regarding the velocity or energy distribution of nucleons and nuclei.

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