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**Vector Modes from a Primordial Hagedorn Phase of String Cosmology** MICHAEL GIRARD, University of California, Irvine, ALI NAYERI, Chapman University — It has been shown in previous publications that a Hagedorn phase of string gas cosmology (SGC) can provide a casual mechanism for generating a nearly scale-invariant spectrum of the scalar metric fluctuations, without the need for a period of slow-roll inflation. In this paper we will compute the spectrum of the vector metric fluctuations in SGC and show that it is proportional to pressure, as in standard early universe cosmology. // Ali Nayeri: [nayeri@chapman.edu](mailto:nayeri@chapman.edu), Michael Girard: [mgirard@uci.edu](mailto:mgirard@uci.edu)

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