

Abstract Submitted  
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**“Sub-prime” Biophysics: Acoustic assessment of animal stress**

DAVID BROWNING, Physics Department, University of Rhode Island — Animal welfare is of increasing concern. Vocalizations can be easily monitored and for some animals, such as the “yip” of a dog, stress is easily discernible. Unfortunately for many important farm animals, such as cows, sheep, and horses, the impact of stress on vocalizations appears to be more subtle. Our work is presently focused on the frequency spectra of horse whinnies. A whinny is comprised of two components; a tonal structure, and a varying frequency component or “call.” Results to date are presented on whether a horse can control this “call” so that there is a significant difference between a “stressed” whinny and a “happy” whinny.

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