## Abstract Submitted for the APR10 Meeting of The American Physical Society

The Sound of the Little Bang AGNES MOCSY, Pratt Institute, PAUL SORENSEN, BNL, ALEXANDER DOIG, Pratt Institute — The matter created in collisions at Brookhaven's Relativistic Heavy Ion Collider is as hot and dense as the Universe was one microsecond after the Big Bang. For this reason the collisions are sometimes called "little bangs." The matter created in the little bangs at Brookhaven Lab has been found to contain interesting acoustic signatures. We Fourier transform momentum correlation measurements into a frequency spectrum and then scale the frequencies to be audible to the human ear. We therefore are able to present an acoustic picture of the collisions. Our analysis of the frequency spectrum from momentum correlations is analogous to the analysis of the Cosmic Microwave Background.

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