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Theory of Vibrations in Suspended Nanotubes HANDE ÜSTÜNEL, DAVID ROUNDY, TOMÁS A. ARIAS, Cornell University — Vibrations of nanotubes clamped at both ends and suspended over a gate have been studied recently[1]. In this talk, we study theoretically the effects of various parameters such as slack and downward force on the vibrations of such a suspended nanotube. We model the nanotube as a one-dimensional continuum and present results exploring a wide range of system parameters.

[1]V. Sazonova, Y. Yaish, H. Üstünel, D. Roundy, T. A. Arias and P. L. McEuen, Nature **431**, 284 (2004)

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