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**Measurement of scattering cross section of long-range and short-range scatters on single-walled carbon nanotubes** RYUICHI TSUCHIKAWA, MASAHIRO ISHIGAMI, Department of Physics, University of Central Florida — Impacts of long-range and short-range scattering potentials on transport properties of carbon nanotubes are expected to be radically different. We measured adsorbate-induced resistance while varying adsorbate density in ultra high vacuum environment. We used cesium for exerting long-range coulomb potential and atomic hydrogen for inducing short-range scattering potential. We have determined the resistance of individual scattering sites as a function of the scattering potential. We will discuss our results on both nanotube network and individual nanotube devices and compare our results to previous theoretical investigations.

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