Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

Supercurrent in Single Wall Carbon Nanotube Josephson Junctions GANG LIU, YONG ZHANG, CHUNNING LAU — We investigate transport in highly transparent single-wall carbon nanotube Josephson Junctions. Gate tunable supercurrent, multiple Andreev reflections and hysteresis current-voltage characteristics are observed, corresponding to on- and off-resonance transmission of charges via the nanotube's quantized energy levels. In the talk we will discuss the dependence of supercurrent on temperature, source-drain separation and gate voltage, and compare with various theoretical models.

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Date submitted: 26 Nov 2007 Electronic form version 1.4