

# Systematic Study of SWCNT for Antenna Efficiency

Shruti<sup>1</sup>, Amit<sup>2</sup>

<sup>1,2</sup>Department of Physics, Lovely Professional University, Jalandhar-Delhi G.T. Road (NH-1),  
Phagwara, Punjab (India) -144402

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## ABSTRACT

*In this paper, we have applied various parameters by considering general properties of CNT (carbon nanotube) for comparison on the basis of impedance versus frequency plot for different values of  $g$  and  $g^{-1}$  (where  $g$  denotes the ratio of the wave velocity in the absence of interactions to the wave velocity in the presence of interactions as a special significance in the theory of Luttinger liquid) respectively for SWCNT (single walled carbon nanotube). Further a comparison has been done by current distribution for 1V on a 300  $\mu\text{m}$  nanotube antenna by varying excitation in GHz.*

**Keywords:** Nanotechnology, CNT, SWCNT, Nanotube wire antenna.