Contribution ID: 20

## Effects of Universal Lűscher Term in Static Properties of Mesons.

Nambu-Goto string predicts the long distance quark-antiquark potential to be : V (r) =  $\sigma$  r +  $\mu$  + $\gamma$  /r + O(1/r2).

The coefficient  $\gamma = -\pi (d-2)/24$  is the universal Lűscher term which depends on the space-time dimension 'd'. Recent lattice calculation of the force versus distance supports this potential for r>0 and d=3 & 4. We use quantum mechanical Dalgerno's method to calculate the effect of Luscher term in quark-antiquark wave function and apply it to the mass and decay constants of heavy-light and heavy-heavy mesons.

Primary author: Mr ROY, Sabyasachi (Karimganj College, Karimganj, India.)

Co-author: Prof. CHOUDHURY, Dilip Kumar (Gauhati University, India)

Presenter: Mr ROY, Sabyasachi (Karimganj College, Karimganj, India.)

Track Classification: Poster session