SEMINAR NOTICE

Department of Physics and Engineering Physics
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SPEAKER: Thamirys de Oliveira, PhD Candidate
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TOPIC*:*   ***Heavy-light and Heavy-strange Diquark Mass Splitting from QCD Sum Rules.***

DATE: Tuesday April 4th, 2023

TIME: 3:30-4:30 p.m.

PLACE: *Physics 103*

Abstract:

QCD Laplace sum rules are an important tool to extract information about bound states of quarks from perturbative QCD with non-perturbative effects of QCD condensates. Applying the QCD Laplace sum rules to heavy-light and heavy-strange diquarks, a bound state of two quarks, we compare their masses. Diquark correlation functions are renormalized using the diagrammatic renormalization method. It is found that the strange quark condensate parameter $k = \langle \bar{s}s/\bar{q}q\rangle$ plays an important role in the heavy-light and heavy-strange diquark mass splitting.