



The Department of Physics invites you to attend a
thesis defense by:

ALEX CLÉSIO NUNES MARTINS

Master of Science in Physics Candidate

entitled

“Correspondence Rules in $SU(3)$ ”

Supervisor: Dr. Hubert de Guise

I will present a path to the correspondence rules for the generators of $su(3)$ symmetry and compare my results with the $su(2)$ correspondence rules. Using these rules, I obtain analytical expressions for the Moyal bracket between the Wigner symbol of a Hamiltonian \hat{H} , where this Hamiltonian is written linearly or quadratically in terms of the generators, and the Wigner symbol of a general operator \hat{B} . I show that for the semiclassical limit, where the $su(3)$ representation label λ tends to infinity, this Moyal bracket reduces to a Poisson bracket, which is the leading term of the expansion (in terms of the semiclassical parameter ϵ), plus correction terms. Finally, I present the analytical form of the second order correction term of the expansion of the Moyal bracket.

DATE: Friday, SEPTEMBER 14th, 2018
TIME: 1:30 p.m.
Room: CB 4058