

Potential Solution to Strong CP violation: X_{\pm} model

MSc Thesis Seminar

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DATE: Friday, July 8, 2016

TIME: 10:00 AM

PLACE: C2001 (Dean's Boardroom, Grenfell Campus)

ABSTRACT: The strong charge parity (CP) violation has been an open problem for many years. Expanding the current Standard Model (SM) to include new physics particles is a potential approach to explain it. To do so, X_{\pm} was introduced with X_{+} coupling to anti-fermion current and X_{-} to fermion current. As possible channel for searches for X_{\pm} , we have considered X_{+} in $e^{+} - e^{+}$ scattering and X_{-} in $e^{-} - e^{-}$ scattering. The difference between the cross sections were calculated at one loop level accuracy. The results were displayed in the form of exclusion plots. However, in order to further test the new physics particles influence on strong CP violation, more research is needed. More specifically, one must test the hadronic interactions for X_{\pm} .

This is a MSc thesis presentation that will take place at the Grenfell Campus and shown over video conferencing.

Graduate students from our department are especially encouraged to attend.

ALL ARE WELCOME!