



Contribution ID: 1335
compétition)

Type: Oral (Student, In Competition) / Orale (Étudiant(e), inscrit à la

Using dressed fields to extract gauge invariant information.

Wednesday 15 June 2016 10:15 (15 minutes)

The existence of unexpected states (states not predicted by the conventional quark model) in heavy Quarkonia, specifically Charmonium and Bottomonium like states, is of great interest to modern particle physics. States like $X(3872)$, $Y_b(10890)$, $Z^{\prime}_{\text{pm}b}(10610)$, and $Z^{\prime}_{\text{pm}b}(10650)$ have proven difficult to reconcile with the conventional quark model. However, analysis of diquark constituent masses has pointed towards tetraquark configurations being responsible for many of these exotic states.

Thus far, the diquark correlations required for a tetraquark configuration of $X(3872)$ have been primarily examined

Author: Mr SMITH, Paul (University of Saskatchewan)

Co-author: STEELE, Tom (U of Saskatchewan)

Presenter: Mr SMITH, Paul (University of Saskatchewan)

Session Classification: W1-3 Testing Fundamental Symmetries I (DNP-PPD-DTP) / Tests de symétries fondamentales I (DPN-PPD-DPT)

Track Classification: Particle Physics / Physique des particules (PPD)