

Group Meeting Update

Y. Okugawa¹ A. Irles² R. Yonamine¹ F. Richard² R. Pöschl²

¹Tohoku University

²Laboratoire de l'Accélérateur Linéaire

February 8, 2019



Updates

- Purity distribution of correct charge has been improved with different parameterization on α and d_0
- α and d_0 and cut criteria is shown.
- Change in parameterization for offset significance.
“deviation $> 25*\sqrt{\text{angle}}+1.0$ ”
→ “deviationD0 $> 10.*\sqrt{\text{angle}}+1.5$ ”

Charge Purity Distribution

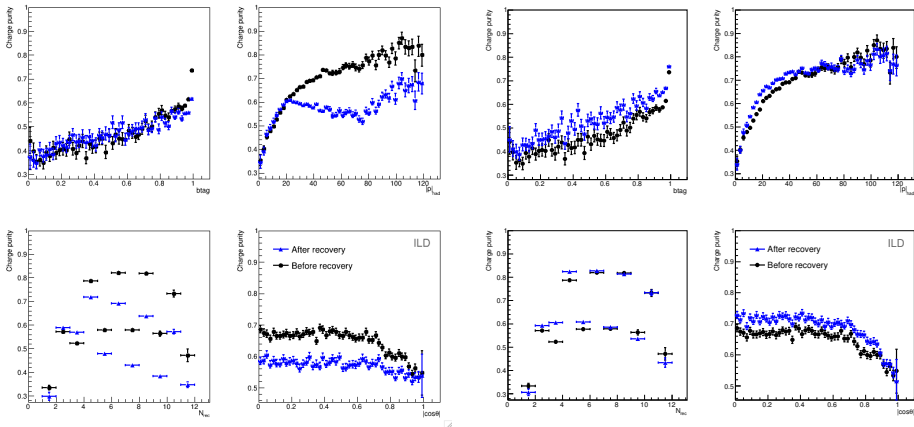


Figure: before parametrization change

Figure: New charge purity result

Charge Purity

===== Before Recovery =====

Total events: 73579

Correct charge: 59664 of 91847 (64.9602%)

===== After Recovery =====

Correct charge: 63429 of 91847 (69.0594%)

Confirmation of 5% rise in purity selection efficiency with 4,000 more charged particles.

Charge Purity Distribution

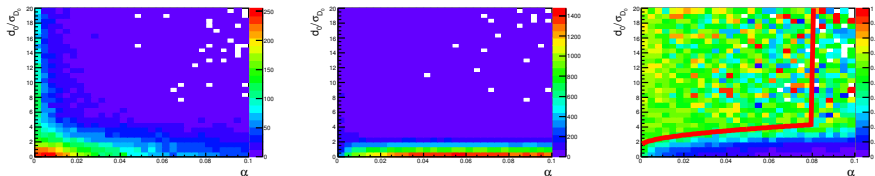


Figure: d_0 and α new $tt\bar{b}\bar{b}$

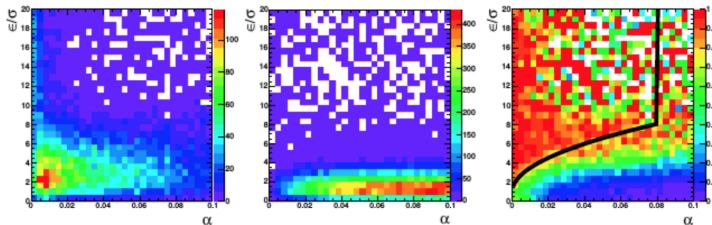


Figure: bilokin's result

Conclusion

- Odd purity reduction was resolved.
- Could we gain more efficiency with d_0 and α for new $t\bar{t}$ bar?
- stack plot on the way (due to technical issue)