ILC analysis

Victor
Lohezic

First results
Polar angle
distribution of t
Polar angle
distribution of b

Lepton only
analysis

ILC analysis
$e^+e^- \to t\bar{t}$
Right handed polarisation

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June 19, 2019

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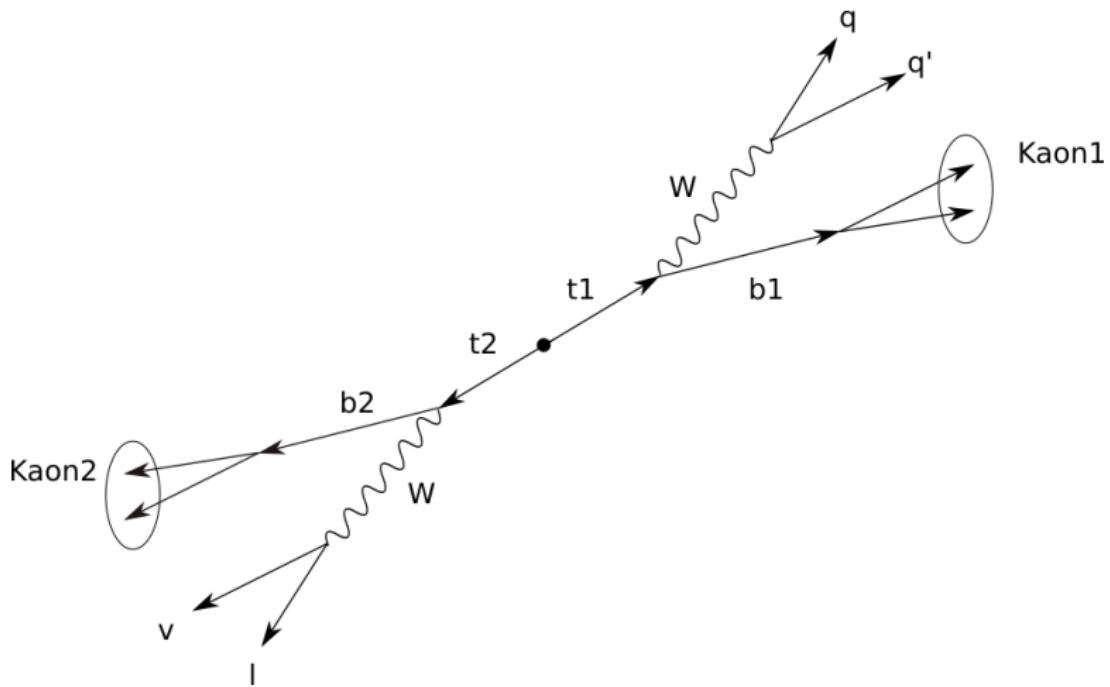
Figure 1 – A nice kinematic diagram of the decay process by Yuichi

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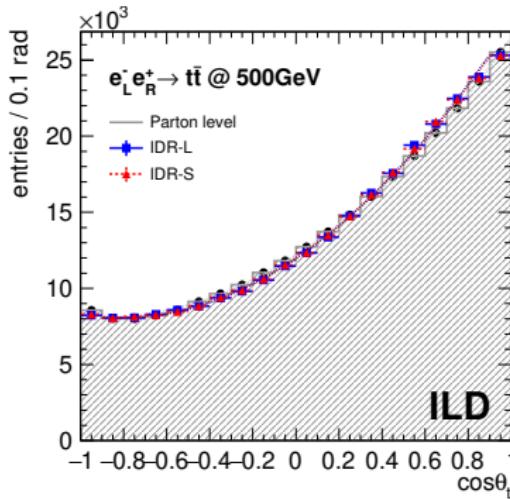
Figure 2 – Left handed (Yuichi)
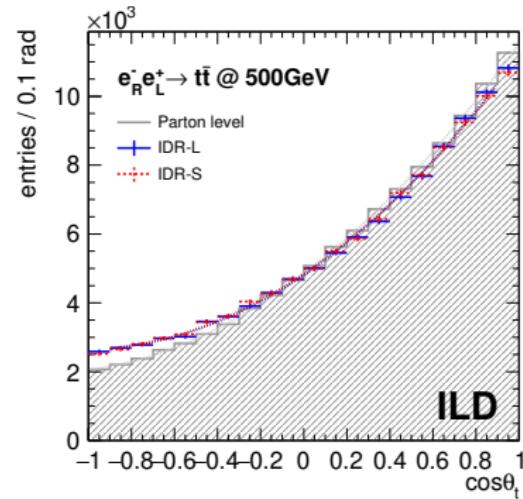
Figure 3 – Right handed (Victor)

	LARGE Detector	SMALL Detector
Final efficiency	30.609%	30.453%

	LARGE Detector	SMALL Detector
Final efficiency	29.2896%	29.1365%

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Polar angle distribution of b
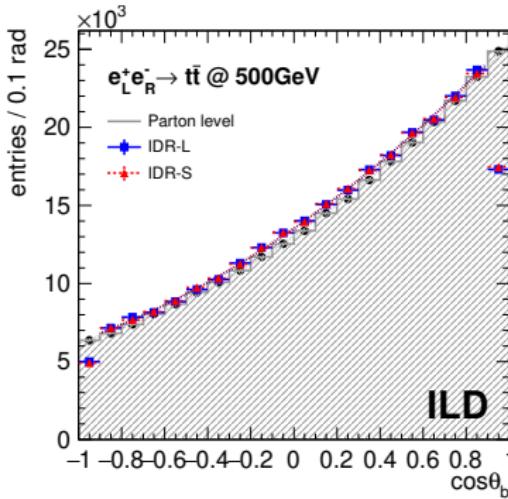
Figure 4 – Left handed (Yuichi)
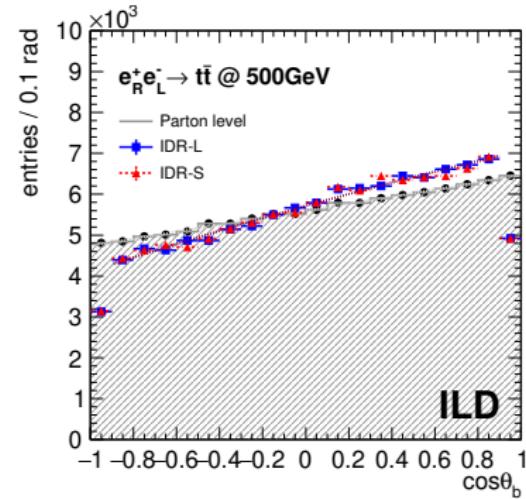
Figure 5 – Right handed (Victor)

	LARGE Detector	SMALL Detector
Final efficiency	30.609%	30.453%

	LARGE Detector	SMALL Detector
Final efficiency	29.290%	29.137%

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Methods used :

1. vertex1Xvertex2

2. kaon1Xkaon2

3. vertex1Xkaon1 &
   vertex2Xkaon2

4. vertex1Xkaon2 &
   vertex2Xkaon1

5. leptonXvertex1 &
   leptonXvertex2

6. leptonXkaon1 &
   leptonXkaon2

7. chi2 + lepton
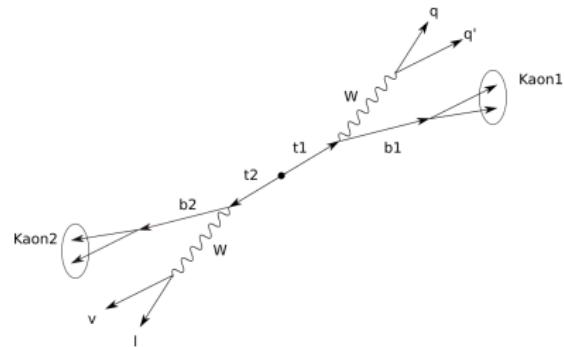
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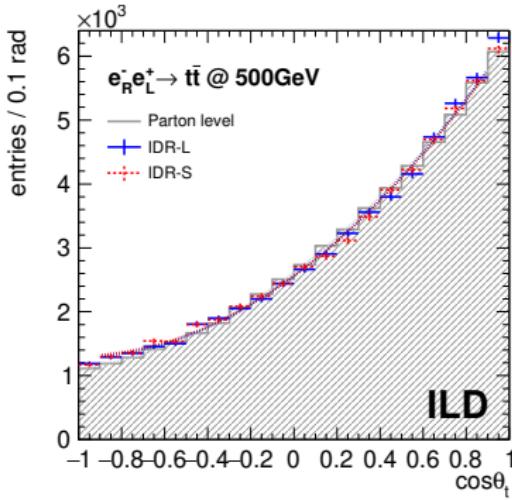
Figure 6 – Distribution of t
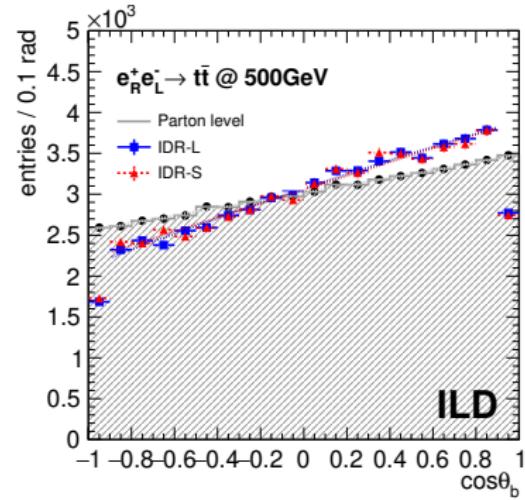

Figure 7 – Distribution of b

	LARGE Detector	SMALL Detector
Final efficiency	15.782%	16.151%