

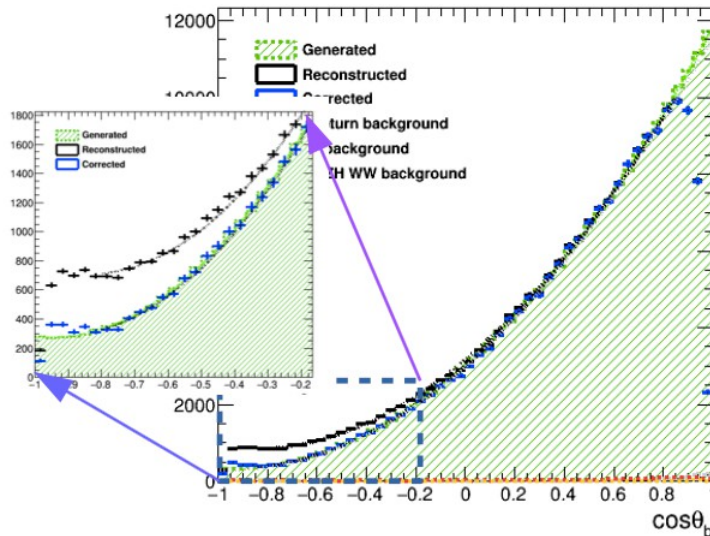
Topic	Group	Comment
ee->tt Full leptonic, Matrix element	LAL/Tohoku	Ongoing analysis
ee->bb	LAL	Ongoing analysis, paper and PhD thesis in 2017
Top mass, ee->tty	IFIC	Ongoing analysis
Top mass Threshold, interpretation	MPP-MPG	Ongoing analysis
ee->tt Anomalous couplings using EFT	IFIC	Ongoing analysis
Top CPV couplings	IFIC/LAL/RWTH	Paper in preparation
ee->tt, continuum Fully hadronic	???	Under discussion: LAL internship and UCL London
Jet algorithms	IFIC	“Standing” item with several applications
QCD e.g. alpha_s	???	Open topic
t->ch	Warsaw	Ongoing analysis
t->cy	MPP	Ongoing analysis

- “Lightweight” organisation
 - Mail and personal Communication
 - “Actors know each other”
- Regular reports at s/w and Analysis meetings
- Good communication with theory and instrumentation groups
- Members of ILD Top/QCD play visible roles in promoting Top/QCD topics in several instances
- Top/QCD studies in ILD are backbone when demonstrating LC physics potential (w.r.t. Top/QCD)

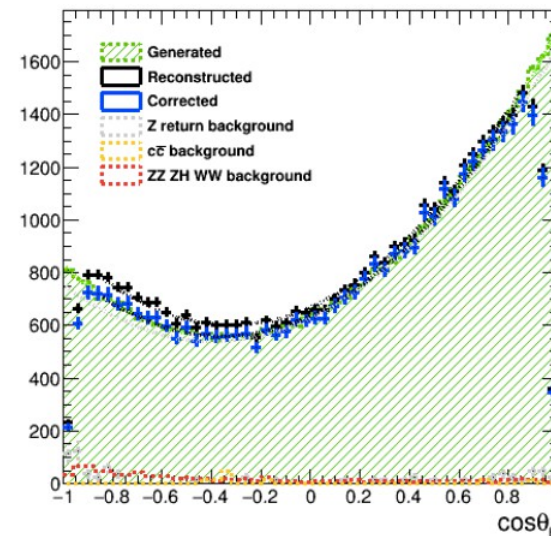
- Analysis of $ee \rightarrow bb$ reaches “maturity”

$$\sqrt{s} = 250 \text{ GeV} \quad \mathcal{L} = 250 \text{ fb}^{-1}$$

$$e_L^- e_R^+ \rightarrow b\bar{b} \qquad e_R^- e_L^+ \rightarrow b\bar{b}$$



$$A_{fb}^{rec} / A_{fb}^{gen} = 100.7\% \pm 0.62\%$$



$$A_{fb}^{rec} / A_{fb}^{gen} = 104.9\% \pm 2.25\%$$

- Triggered discussion on design of inner vertex and forward region (see also studies by Mikael and discussions at Lyon)
 - To be positive we still have a large lever arm in $\cos\theta$ to extract excellent physics
 - However a precision experiment should not be satisfied with the acceptance drop over nearly the entire endcap region
- Benchmark reaction for 250 GeV running
- Interpretation ongoing
- Stay tuned for [top@LC17](#)

- Matrix element analysis
 - Further visit of Yo to LAL to condense ideas and recent findings into results for [top@LC17](#) and AWLC
- Advanced draft on CPV paper by Marcel
- News from IFIC Valencia, see next talk by Esteban
- F. Simon continued on extraction of top mass from threshold (rather phenomenologie)
- No news on anomalous top decays
 - Analyses may rather be CLIC oriented
- “QCD sector” of working group
 - Jet studies at Valencia (“standing item”)
 - Still no group working on α_s
 - Personal remark: Would attract people if GigaZ becomes integral part of ILC physics programme

Workshop on top physics at the LC 2017

7-9 June 2017

CERN

Europe/Zurich timezone

Search...



- Organised at CERN, mainly by Philipp Roloff, thanks a lot!!!
- 5th workshop in series (Time for a little candle ;-)
- 60 participants!!!!
- Nice mix of theory and experiment and of different lepton collider shapes
- ILD studies excellent backbone for prospects on heavy quark couplings
- [Top@LC18](#) at Tohoku