

Simulation and Reconstruction Software for LumiCal

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Tools available for simulation :

1. Old Geant3 based application – BARBIE

features: build in BHLUMI generator
entire LDC detector is implemented
only LumiCal instrumented
fast, robust compiles and runs
on any computer (~ 3sec / full Bhabha event)

2. Geant4 based application Mokka

- LumiCal drivers were implemented year ago
- recently we (me and our student M.Kapolka)
developed few new superdrivers including Lumical
- the was passed to ILC software group and
will be available with new release

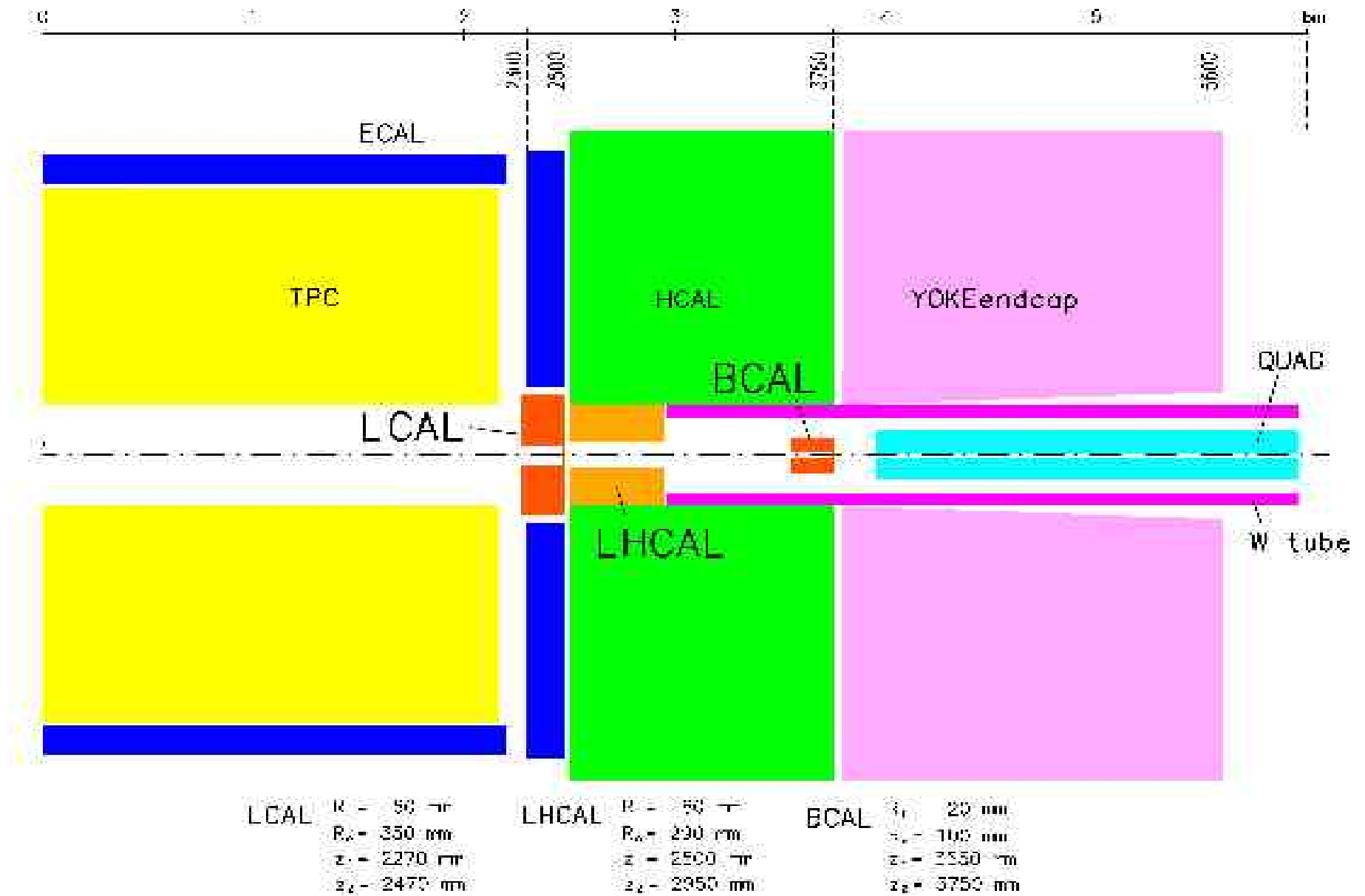
Mokka simulation program features:

- superdrivers offer flexibility in creating detector model
- all LDC detector concept are in and instrumented
- output ILC standart LCIO
- significant drawback is CPU consumption
(~3 min (180sec) per fully simulated Bhabha event

Reconstruction of LumiCal Data

- we have initial version of shower reconstruction in Lumical written in framework of Marlin, anybody interested can obtain this development version features ;
 - finds all showers in LumiCal
 - determines directions angle without IP information
 - root or aida output

LDCv2 Detector Concept



Summary

- we strongly encourage anybody try to use Mokka/Marlin and join development of LumiCal drivers as well as reconstruction