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Status  
of  
Generator Service Project

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on behalf of GENSER team

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## New generators and new versions in GENSER (since May 2010)

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new versions of:	new generators:	on installation list:
<ul style="list-style-type: none"><li>• Cascade</li><li>• Herwig 6.520</li><li>• Pythia 6-424</li><li>• Tauola++ 1.0.2a</li><li>• LHAPDF 5.8.4 ...</li></ul>	<ul style="list-style-type: none"><li>• HEJ</li><li>• Powheg-box</li></ul>	<ul style="list-style-type: none"><li>• QCDLoop</li><li>• PHOJET 1.12</li><li>• <a href="#">MC@NLO</a></li><li>• Photos++ 3.0</li><li>• Charybdis2</li></ul>

**!** Often new generators come with raw build system.  
Takes considerable amount of time to integrate  
them in GENSER!

Excellent result from collaboration with authors:

**Build system for Tauola++ and Photos++**



HepMC 2.06.01

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to facilitate migration to new version of HepMC:

- **special build of all the HepMC-dependent packages with the latest HepMC (2.06.01):**

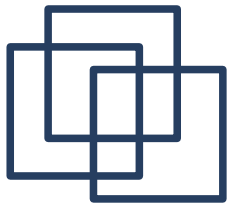
[/afs.cern.ch/sw/lcg/external/MCGenerators\\_hepmc20603](http://afs.cern.ch/sw/lcg/external/MCGenerators_hepmc20603)

(same directory structure as for MCGenerators)

- **nightly builds with HEAD version of HepMC. (only Pythia8 135 at the moment, plan - to add tests based on HepMC Analysis Tool)**

Nightly build results can be found at:

<http://lcgapp.cern.ch/spi/cgi-bin/nightlies.py>



## New supported platforms on MacOSX

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Current supported platforms:

slc4\_ia32\_gcc34, slc4\_amd64\_gcc34, i686-slc5-gcc43-opt,  
x86\_64-slc5-gcc43-opt

The new platforms:

x86\_64-mac106-gcc42-opt, i686-mac106-gcc42-opt.

regular Genser3 build procedure, no differences from building MC generators on slc4/slc5: no special patches required ,OS X specific compiler and linker options are set automatically by autotools

MC generators and related libraries successfully built for \*-mac106-gcc42-opt so far:

\* Ready to install to

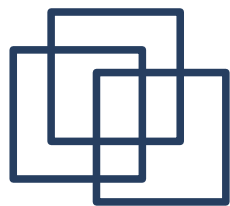
/afs/cern.ch/sw/lcg/external/MCGenerators

on demand

\* Newer versions of all MC generators will be installed to

/afs/cern.ch/sw/lcg/external/MCGenerators on regular basis

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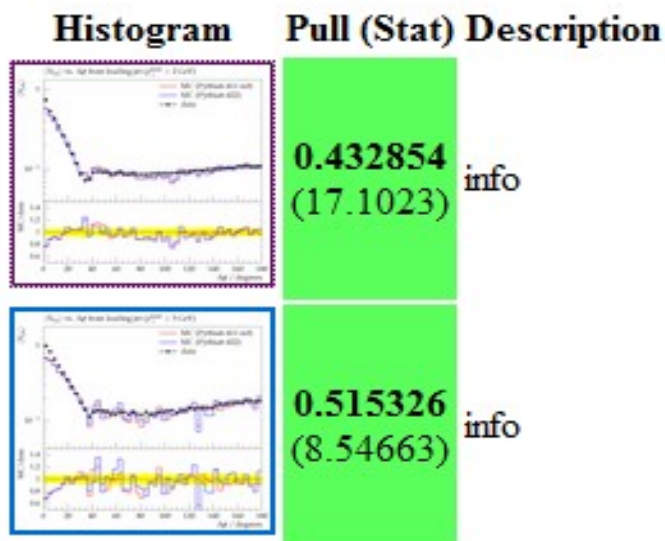
# Validation with RIVET and HepMC Analysis Tool

<http://lcgapp.cern.ch/project/simu/generator/genval.html>

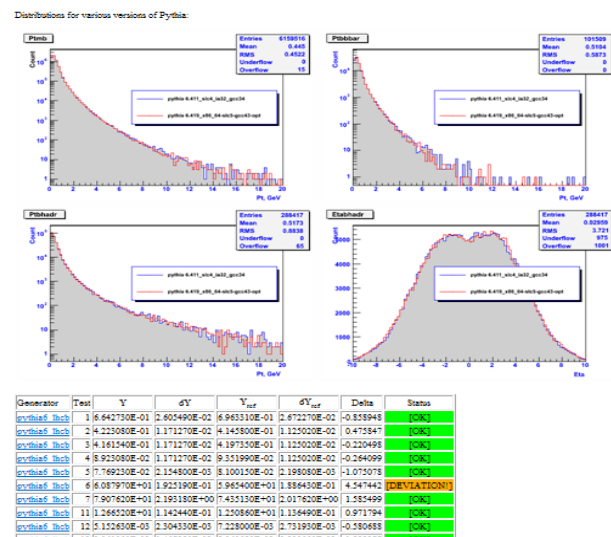
Few regression tests added to GENSER:

**with RIVET**

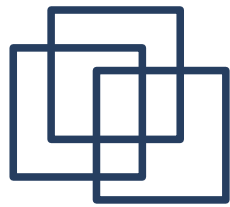
**with HepMCAnalysis Tool**



Test results for x86\_64-slc5-gcc43-opt (reference (numbers): Pythia 6.227)



For validation purpose we plan to use both tools.

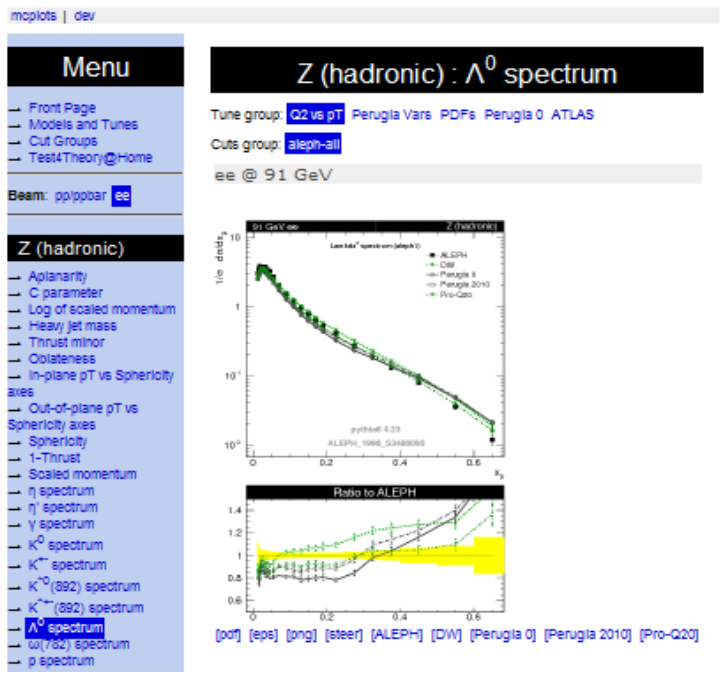


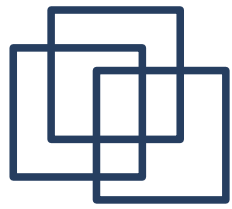
In collaboration with LHC Physics Center at CERN new project started: MCPLOTS (mcplots.cern.ch).

The idea is to replace „hand-filled“ webpage of Peter Skands by more automatic and universal webpage.

MCPLOTS - simple browsable repository of MC (Monte Carlo) plots, for tuning and reference purposes.

Your Feedback is Welcome!!!





# Plans

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