

HPS Software Overview

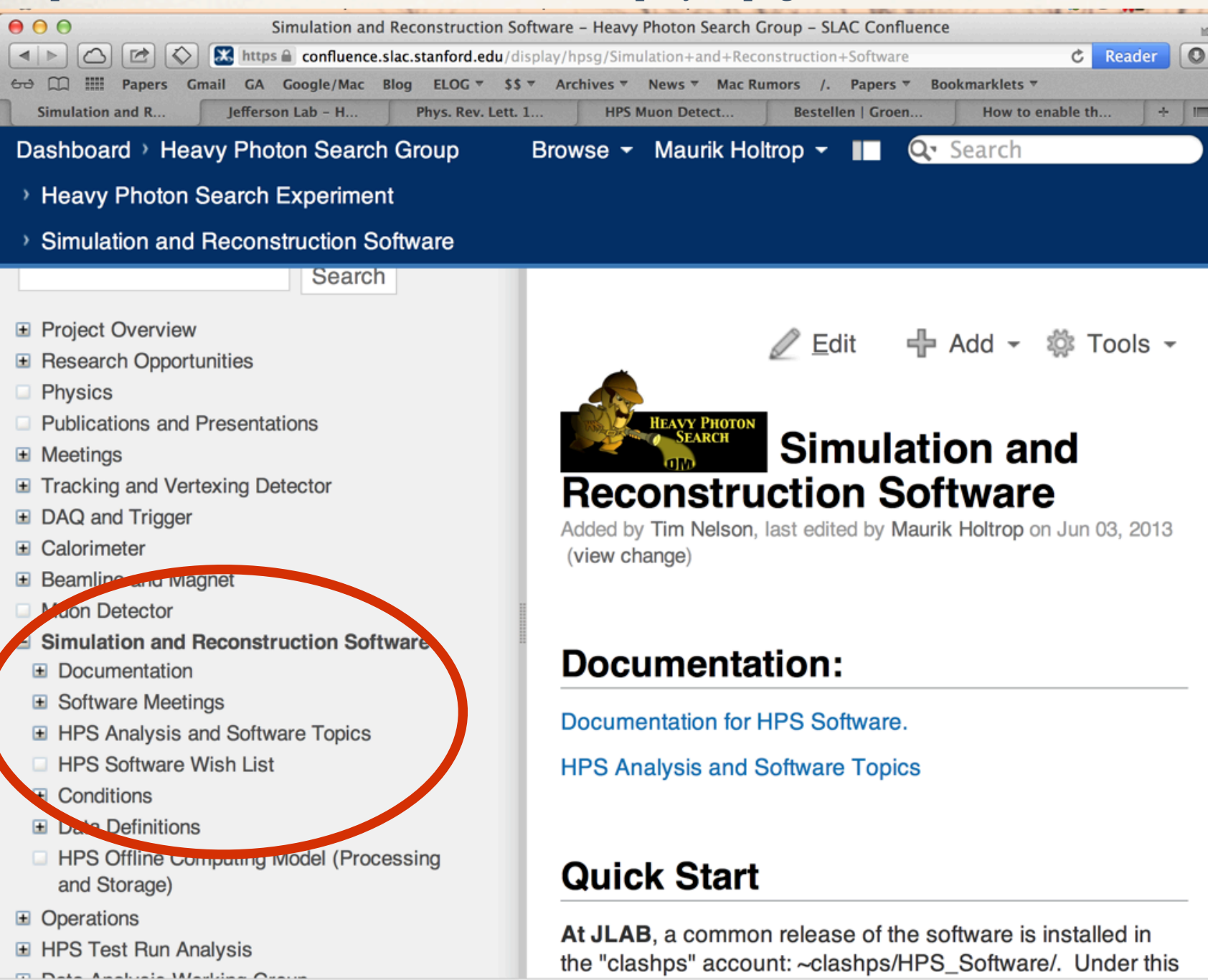
HPS collaboration meeting

June 6, 2013

Software Group

Active & enthusiastic group.... Join us! hps-software@slac.stanford.edu

<https://confluence.slac.stanford.edu/display/hpsg/Simulation+and+Reconstruction+Software>



Simulation and Reconstruction Software – Heavy Photon Search Group – SLAC Confluence

<https://confluence.slac.stanford.edu/display/hpsg/Simulation+and+Reconstruction+Software> Reader

Simulation and R... Jefferson Lab – H... Phys. Rev. Lett. 1... HPS Muon Detect... Bestellen | Groen... How to enable th...

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Simulation and Reconstruction Software

Added by Tim Nelson, last edited by Maurik Holtrop on Jun 03, 2013 (view change)

Documentation:

[Documentation for HPS Software.](#)

[HPS Analysis and Software Topics](#)

Quick Start

At JLAB, a common release of the software is installed in the "clashps" account: ~clashps/HPS_Software/. Under this

Documentation,
How to get started
Where the data?
Meetings

Updated by everyone

Monte Carlo Chain

Generators

~~Geant4 for beam background.~~

Goto person:

EGS5, beam background

MadGraph / MadEvent, A' signals, tridents

Takashi

Fluka, pions, neutrons

StdHep

Detector Simulation

GEMC, geometry development,
simple studies.

Maurik, Maurizio

SLIC, production MC simulation
detector studies, tracking studies...

Jeremy, Sho

LCIO

Reconstruction

hps-java + lcsim, tracking
Ecal cluster & trigger,
JAS3 analysis

Matt, Pelle, Sho, Omar
Jeremy, Norman

LCIO

DST

hps_dst, root analysis

Omar

Experimental Data Chain

DAQ Hardware

Goto person:

DAQ Software

Sergey



EVIO

Elliott Wolin, Carl Timmer

Reconstruction

hps-java + lcsim, tracking
Ecal cluster & trigger,
JAS3 analysis

**Matt, Pelle, Sho, Omar
Jeremy, Norman**



LCIO

DST

hps_dst, root analysis

Omar

Online Monitoring

DAQ Hardware

DAQ Software

EVIO

Event Transport Ring (ET)

Low Level
Detector
Monitoring

Reconstruction
Based Detector
Monitoring

Specific programs for
monitoring the detector
hardware

hps_java + lcsim
Histograms, track based
monitoring, ...

Goto person:

Sergey

Elliott Wolin, Carl Timmer

Detector Groups

Jeremy +
Detector Groups

Calibration

Tracker Calibration

Gain, t_0 ,
alignment,
noise rejection

SVT Detector Group

ECAL Calibration

Gain, thresholds, t_0 ,
noise rejection

ECAL Detector Group

Muon Detector
Calibration

Gain, thresholds, t_0 ,
noise rejection

Muon Detector Group

Conditions System

Store all calibrations &
time dependent constants
in convenient system.

?

Questions?

Email to:

hps-software@slac.stanford.edu