TrackOpt project status update
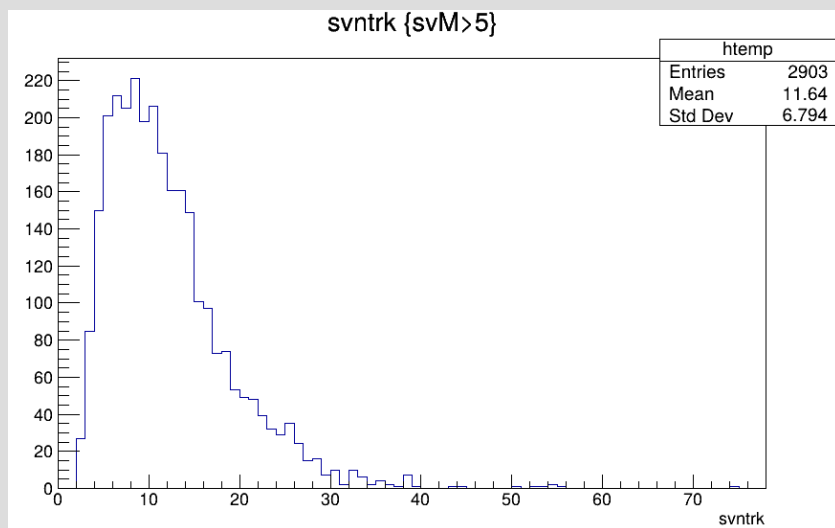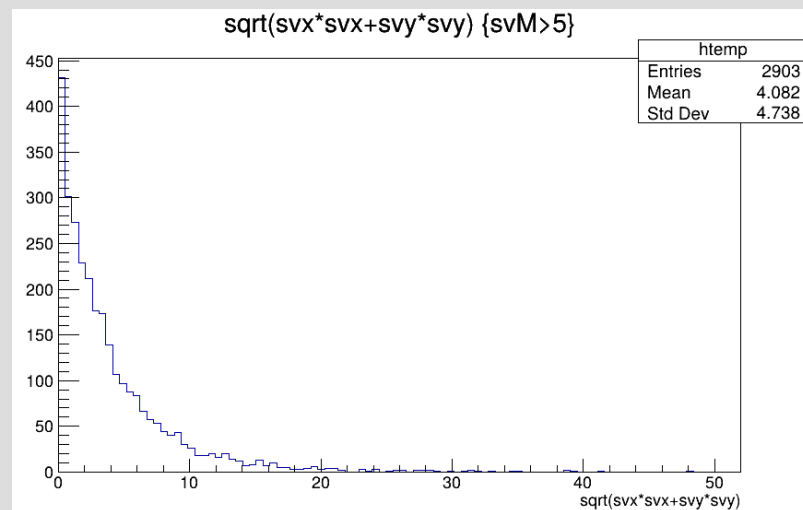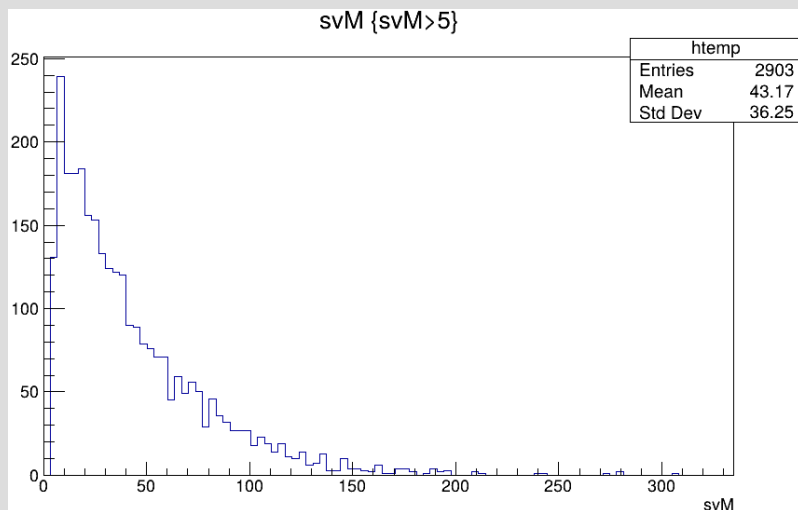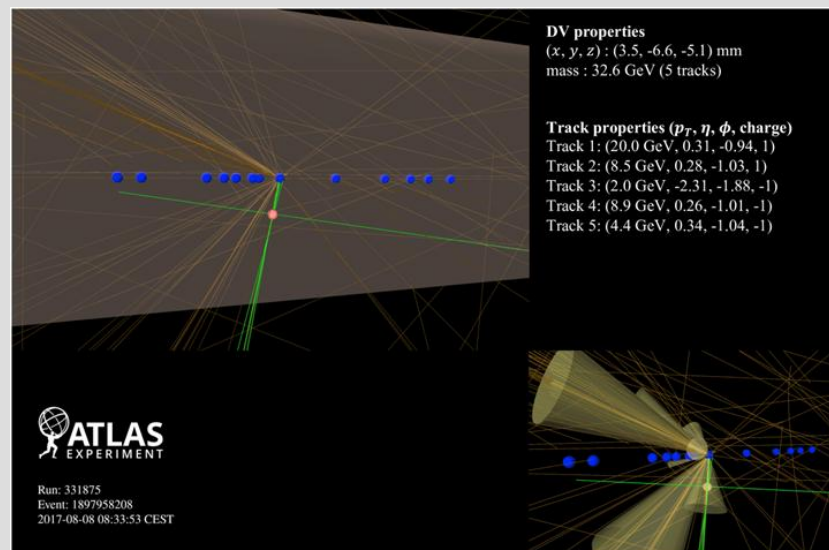
V. Kostyukhin
Siegen university

Update - baseline MC model

MC model with L(ong) L(ived) P(article) - gluino M=607GeV, ctau=10mm (tunable).
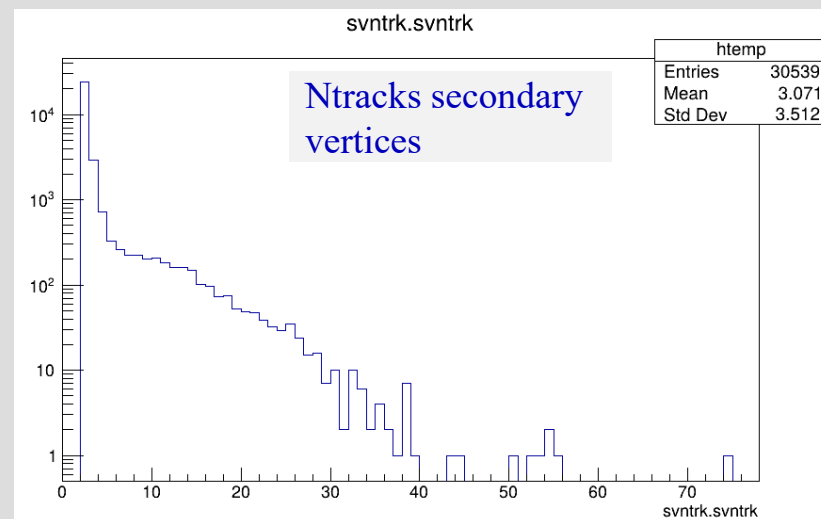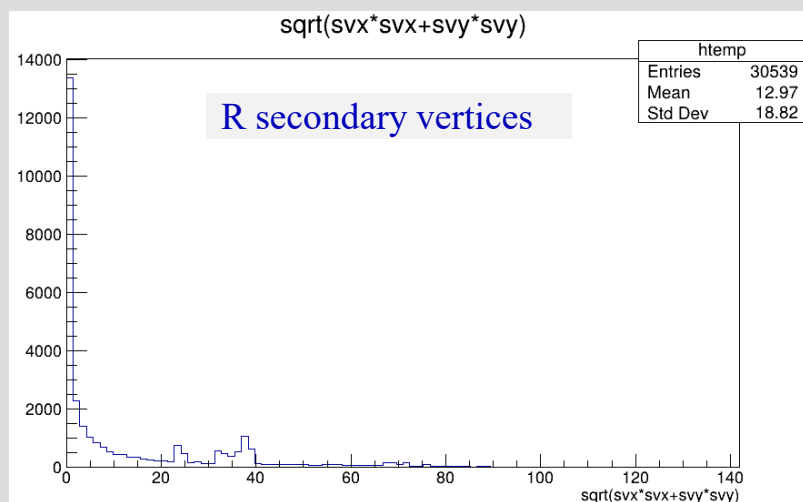

svM {svM>5}

htemp	
Entries	2903
Mean	43.17
Std Dev	36.25

sqrt(svx*svx+svy*svy) {svM>5}

htemp	
Entries	2903
Mean	4.082
Std Dev	4.738

svntrk {svM>5}

htemp	
Entries	2903
Mean	11.64
Std Dev	6.794

Attempt to simulate this real event

DV properties
(x, y, z) : (3.5, -6.6, -5.1) mm
mass : 32.6 GeV (5 tracks)

Track properties (p_T, η, ϕ, charge)
Track 1: (20.0 GeV, 0.31, -0.94, 1)
Track 2: (8.5 GeV, 0.28, -1.03, 1)
Track 3: (2.0 GeV, -2.31, -1.88, -1)
Track 4: (8.9 GeV, 0.26, -1.01, -1)
Track 5: (4.4 GeV, 0.34, -1.04, -1)

ATLAS EXPERIMENT

Run: 331875
Event: 1897958208
2017-08-08 08:33:53 CEST

Update – baseline MC model

MC model with L(ong) L(ived) P(article)   - gluino M=607GeV, ctau=10mm (tunable).

N primary vertices

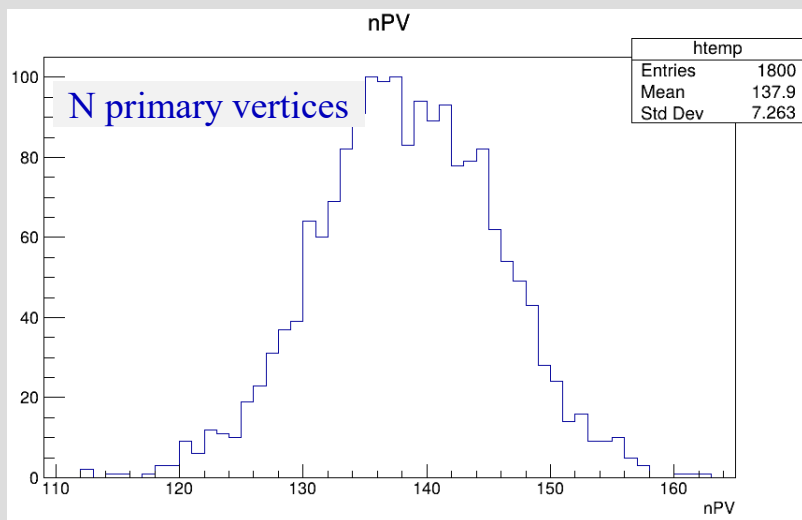N total secondary vertices

R secondary vertices

Ntracks secondary vertices

Problem
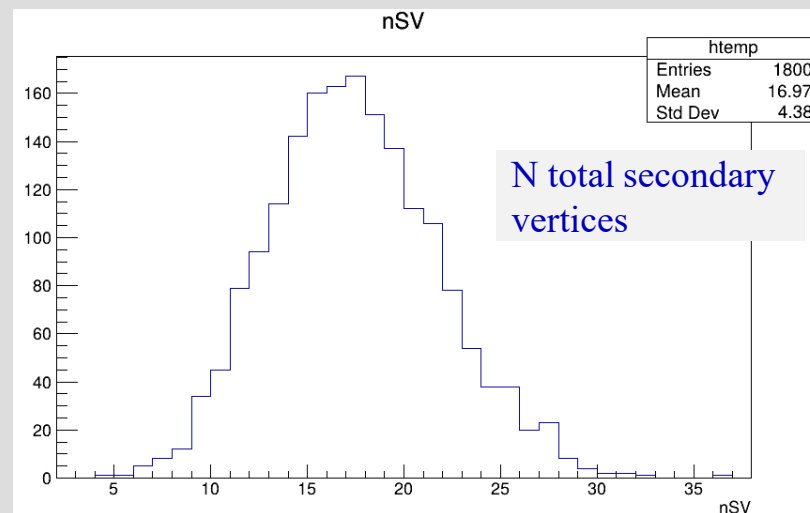
C++20 error in the Andres GRAPH library

 In file included from /mnt/c/Work/ACTS/graph-master/include/andres/graph/detail/graph.hxx:6,
        from /mnt/c/Work/ACTS/graph-master/include/andres/graph/graph.hxx:17,
        from /mnt/c/Work/ACTS/graph-master/src/andres/graph/unit-test/graph.cxx:3:
/mnt/c/Work/ACTS/graph-master/include/andres/random-access-set.hxx: In instantiation of 'class andres::RandomAccessSet<andres::graph::Adjacency<> >':
/mnt/c/Work/ACTS/graph-master/include/andres/graph/detail/graph.hxx:30:23:   required from here
/mnt/c/Work/ACTS/graph-master/include/andres/random-access-set.hxx:35:49: error: no type named 'const_reference' in 'class std::allocator<andres::graph::Adjacency<> >'
   35 | typedef typename Allocator::const_reference const_reference;
      | ^~~~~~~~~~~~~~~
make[2]: *** [CMakeFiles/test-graph-graph.dir/build.make:76: CMakeFiles/test-graph-graph.dir/graph-master/src/andres/graph/unit-test/graph.cxx.o] Error 1
make[1]: *** [CMakeFiles/Makefile2:103: CMakeFiles/test-graph-graph.dir/all] Error 2
make: *** [Makefile:101: all] Error 2

Personal copy with necessary correction?