

Integrating the OLYMPUS radiative generator into the TPEX Monte Carlo

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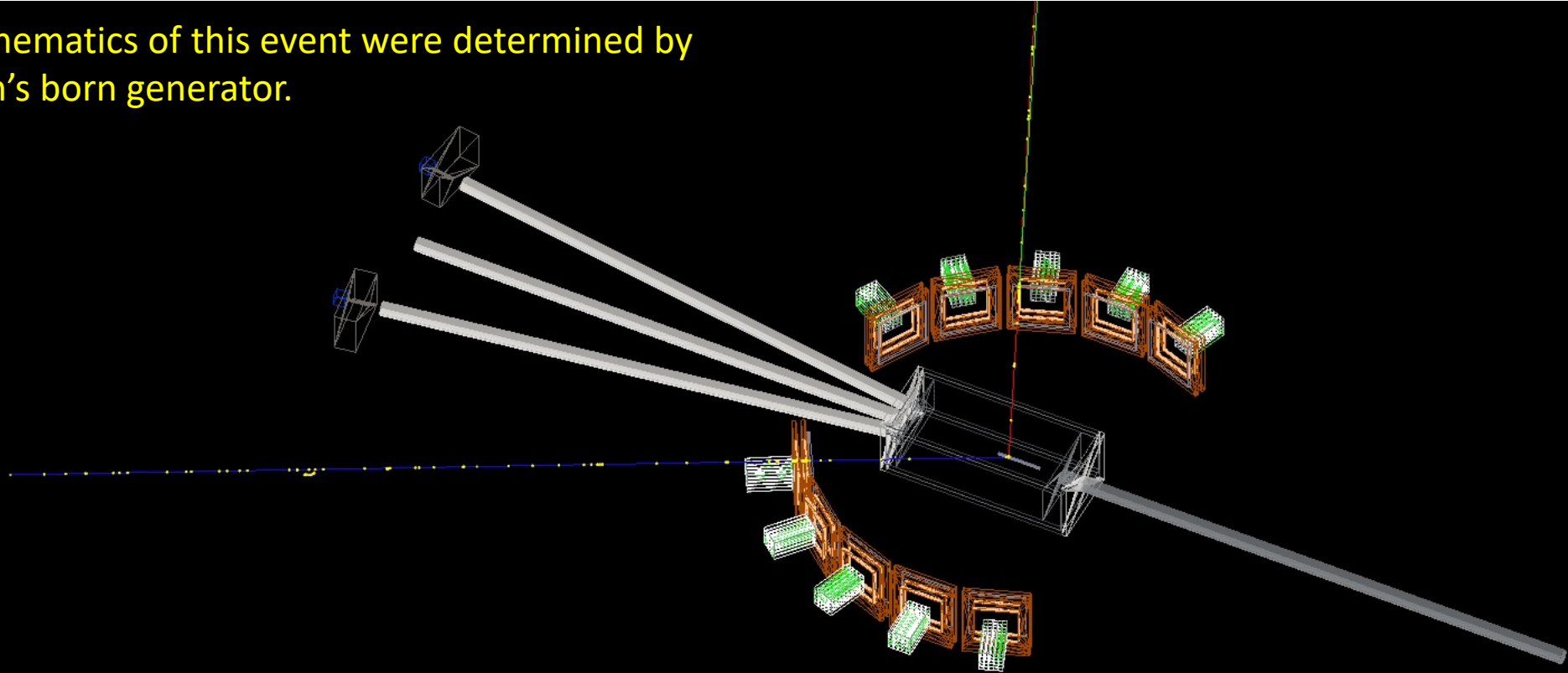
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Progress so far

- Added “radgen” repo as a git “submodule.”
 - Treated as a separate repo inside the Monte_Carlo directory
 - Needs to be re-initiated when making a fresh clone.
- Modified TPEX Generator class to contain a radgen Generator object
 - Particle guns can shoot particles from radgen event.
- Currently works with trivial “born” generator
 - Throw segfault with radiative generator; unclear why

Progress so far

The kinematics of this event were determined by radgen's born generator.



Next steps

- Get radiative generator debugged
- Hook up output tree to generator to store GeneratorEvent branch
 - Including event "weights"
- Make choice of generator configurable
- Set up Geant4 messengers to control all of the generator features
 - Radiative generator, e.g., has some cool tricks
 - Soft-photon sampling fraction
 - ΔE cut-off
 - Option to push radiated photon

My vision for the architecture

