

Example of pythia 8.1 $Z \rightarrow \tau^+ \tau^- \gamma$ event

	Barcode	PDG ID	(Px, Py, Pz, E)	Stat	DecayVtx
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	GenVertex:	-11	ID: 0 (X,cT):0		
$Z \rightarrow Z$	I: 1	8	23 -1.80e-03,+2.96e-02	-8.11e+01,+1.19e+02	-44 -11
	O: 1	12	23 -1.36e-03,+2.77e-02	-8.11e+01,+1.19e+02	-44 -13
.					
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	GenVertex:	-13	ID: 0 (X,cT):0		
$Z \rightarrow \tau^+ \tau^-$	I: 1	12	23 -1.36e-03,+2.77e-02,-8.11e+01,+1.19e+02		-44 -13
	O: 2	15	15 -1.97e+01,-3.85e+01,-3.68e+01,+5.69e+01		-23 -15
		16	-15 +1.97e+01,+3.86e+01,-4.43e+01,+6.20e+01		-23 -14
	GenVertex:	-14	ID: 0 (X,cT):0		
$\tau^+ \rightarrow \tau^+ \gamma$	I: 1	16	-15 +1.97e+01,+3.86e+01,-4.43e+01,+6.20e+01		-23 -14
	O: 2	17	-15 +1.71e+01,+3.53e+01,-3.93e+01,+5.56e+01		1
		18	22 +2.59e+00,+3.15e+00,-5.06e+00,+6.50e+00		1
	GenVertex:	-15	ID: 0 (X,cT):0		
$\tau^- \rightarrow \tau^-$	I: 1	15	15 -1.97e+01,-3.85e+01,-3.68e+01,+5.69e+01		-23 -15
	O: 1	19	15 -1.97e+01,-3.85e+01,-3.67e+01,+5.68e+01		1

vertex with decay to self & energy-momentum not conserved!

placement of photon in event record