Update of MadGraph

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Run Card for Tritrig

```
0.100 = elminsp        ! min E for l+ & at least one l-
100.0 = elmaxsp        ! max E for l+ & at least one l-
1.00 = eltotsp         ! min total E for l+ & at least one l-
0.01 = mmllminsp       ! min invariant mass for at least one l+l- pair
100.0 = mmllmaxsp      ! max invariant mass for at least one l+l- pair
0.0 = thetalminsp      ! min angle (radial direction) for l+ and at least one l-
100.0 = thetalmaxsp    ! max angle (radial direction) for l+ and at least one l-
0.0 = thetaxlminsp     ! min angle (x direction) for l+ and at least one l-
100.0 = thetaxlmaxsp   ! max angle (x direction) for l+ and at least one l-
0.005 = thetaylminsp   ! min angle (y direction) for l+ and at least one l-
100.0 = thetaylmaxsp   ! max angle (y direction) for l+ and at least one l-
0.0 = elmins           ! min E for at least one l
100.0 = elmaxs         ! max E for at least one l
0.0 = thetalmins       ! min angle (radial direction) for at least one l
100.0 = thetalmaxs     ! max angle (radial direction) for at least one l
0.0  = thetaxlmins     ! min angle (x direction) for at least one l
100.0 = thetaxlmaxs    ! max angle (x direction) for at least one l
0.0 = thetaylmins      ! min angle (y direction) for at least one l
100.0 = thetaylmaxs    ! max angle (y direction) for at least one l
```

- The old package can not set kinematic limits for e+ and e-, separately.
- Updated tritrig package can set limits for them, separately.

New Run Card

```
1.00 = eltotst       ! min total E for l+ & at least one l-
0.01 = mmllminst     ! min invariant mass for at least one l+l- pair
100.0 = mmllmaxst    ! max invariant mass for at least one l+l- pair
0.100 = elminsp      ! min E for l+
100.0 = elmaxsp      ! max E for l+
0.0 = thetalminsp    ! min angle (radial direction) for l+
100.0 = thetalmaxsp  ! max angle (radial direction) for l+
0.0 = thetaxlminsp   ! min angle (x direction) for l+
100.0 = thetaxlmaxsp ! max angle (x direction) for l+
0.005 = thetaylminsp ! min angle (y direction) for l+
100.0 = thetaylmaxsp ! max angle (y direction) for l+
0.100 = elminsm      ! min E for at least one l-
100.0 = elmaxsm      ! max E for at least one l-
0.0 = thetalminsm    ! min angle (radial direction) for at least one l-
100.0 = thetalmaxsm  ! max angle (radial direction) for at least one l-
0.0 = thetaxlminsm   ! min angle (x direction) for at least one l-
100.0 = thetaxlmaxsm ! max angle (x direction) for at least one l-
0.005 = thetaylminsm ! min angle (y direction) for at least one l-
100.0 = thetaylmaxsm ! max angle (y direction) for at least one l-
0.0 = elmins         ! min E for at least one l
100.0 = elmaxs       ! max E for at least one l
0.0 = thetalmins     ! min angle (radial direction) for at least one l
100.0 = thetalmaxs   ! max angle (radial direction) for at least one l
0.0  = thetaxlmins   ! min angle (x direction) for at least one l
100.0 = thetaxlmaxs  ! max angle (x direction) for at least one l
0.0 = thetaylmins    ! min angle (y direction) for at least one l
100.0 = thetaylmaxs  ! max angle (y direction) for at least one l
```

- More flexible for setup of kinematic limits, while options in the new run card completely cover the old one.
- Tests have been done that the new and old packages can produce identical samples with equivalent kinematic limit setup.

Backup

Updated codes

hps-mc/generators/madgraph5/src/tritrig/SubProcesses/P1_emn_emnepem/cuts.inc

hps-mc/generators/madgraph5/src/tritrig/SubProcesses/P1_emn_emnepem/cuts.f

hps-mc/generators/madgraph5/src/tritrig/bin/internal/banner.py