Ntupl with MC variables for $V_{\rm cs}$

- Filled on hadronic WW events at 189 GeV;
- no selection criteria imposed;
- reconstructed ident. information;
- reconstructed jet momenta;
- "ideal" pairing based on minimum angle between reconstructed jets and generated quarks momenta;
- generated momentum of W's used for W polar angle and angle between jet and W in W rest frame;
- (most of) variables filled for each jet (1-4) coresponding to a quark with MC code given in mcodq1-4;
- variables for fastest identified K (π, μ) inside a jet;
- rang=1 if particle is the fastes in a jet, rang=2 if particle is 2nd fastest in a jet, etc.
- if K (π, μ) not found in a jet coresponding variables = 0.
- identification requirements:
  K hadsign dEdX combined: qhaid(7,i).ge.0.5
  π -"- -"- : qhaid(7,i).eq.0.

  K hadsign : khaid(4,i).ge.1.
  π -"- : khaid(6,i).eq.1.

  K newtag : khaidn(2,i).ge.1.
  π -"- : khaidn(1,i).ge.1.

  K ribmean prob. : khaidr(2,i).ge.1.
  π -"- : khaidr(1,i).ge.1.

μ : kmuid(1,i) at least loose muon

- List of variables on ntupl:

'mcodq1','mcodq2','mcodq3','mcodq4', ! MC code of q in i-th jet

'btags1','btags2','btags3','btags4', ! B-tag for i-th jet

'kidco1','kidco2','kidco3','kidco4', ! K identific. HADSIGN dEdX combined
'kraco1','kraco2','kraco3','kraco4', ! K rang inside jet
'kmoco1','kmoco2','kmoco3','kmoco4', ! K momentum
'kchco1','kchco2','kchco3','kchco4', ! K charge
'pidco1','pidco2','pidco3','pidco4', ! PI identific. HADSIGN dEdX combined
'praco1','praco2','praco3','praco4', ! PI rang inside jet
'pmoco1','pmoco2','pmoco3','pmoco4', ! PI momentum
'pchco1','pchco2','pchco3','pchco4', ! PI charge

'kidst1','kidst2','kidst3','kidst4', ! K identific. HADSIGN
'krast1','krast2','krast3','krast4', ! K rang inside jet
'kmost1','kmost2','kmost3','kmost4', ! K momentum
'kchst1','kchst2','kchst3','kchst4', ! K charge
'pidst1','pidst2','pidst3','pidst4', ! PI identific. HADSIGN
'prast1','prast2','prast3','prast4', ! PI rang inside jet
'pmost1','pmost2','pmost3','pmost4', ! PI momentum
'pchst1','pchst2','pchst3','pchst4', ! PI charge

'kidne1','kidne2','kidne3','kidne4', ! K identific. newtag
'krane1','krane2','krane3','krane4', ! K rang inside jet
'kmone1','kmone2','kmone3','kmone4', ! K momentum
'kchne1','kchne2','kchne3','kchne4', ! K charge
'pidne1','pidne2','pidne3','pidne4', ! PI identific. newtag
'prane1','prane2','prane3','prane4', ! PI rang inside jet
'pmone1','pmone2','pmone3','pmone4', ! PI momentum
'pchne1','pchne2','pchne3','pchne4', ! PI charge

'kidri1','kidri2','kidri3','kidri4', ! K identific. ribmean prob.
'krari1','krari2','krari3','krari4', ! K rang inside jet
'kmori1','kmori2','kmori3','kmori4', ! K momentum
'kchri1','kchri2','kchri3','kchri4', ! K charge
'pidri1','pidri2','pidri3','pidri4', ! PI identific. ribmean prob.
'prari1','prari2','prari3','prari4', ! PI rang inside jet
'pmori1','pmori2','pmori3','pmori4', ! PI momentum
'pchri1','pchri2','pchri3','pchri4', ! PI charge

'midco1','midco2','midco3','midco4', ! MU identific.
'mtrco1','mtrco2','mtrco3','mtrco4', ! MU trans. mom.
'mmoco1','mmoco2','mmoco3','mmoco4', ! MU momentum
'mchco1','mchco2','mchco3','mchco4', ! MU charge

'qjtch1','qjtch2','qjtch3','qjtch4', ! jet charge i-th jet

'thltr1','thltr2','thltr3','thltr4', ! theta q-W in W rest frame
'wanne','wanpo' ! W-,W+ (resp.) polar angle

- E.g. if one wants to get momentum of fastest Kaon in s-jet, identified with Ribmean prob., one should plot
  nt/pl 10.kmori1 kidri1.ne.0.and.mcodq1.eq.3.