

Set up for Tag Vertex reconstruction in Fast Sim

Nicola Neri
Università di Pisa & INFN
14 May 2009

Test on Fast Sim V0.0.4

- Relevant tcl files for $B^0 \rightarrow \pi^+ \pi^-$ example:

`PacMC/PmcPhysicsSequence.tcl`

`PacMC/PmcTagVertexSequence.tcl`

`PacUser/BtoPiPiSequence.tcl`

`PacUser/example_PacTrk.tcl`

Disabling Pid sequences for Tagging

I disabled Pid sequences for Tagging in PacMC/PmcTagVertexSequence.tcl
defined in BetaPid/PidTaggingMicroSequence.tcl

```
mod disable PidMicroTaggingDispatch08          talkto LambdaToPPi_VtxTag2 {
mod disable TaggingElectronMicroSelection08    #inputList0    set pLHLoose
                                                inputList0    set ChargedTracks
                                                }
mod disable TaggingMuonMicroSelection08
mod disable TaggingKaonMicroSelection08
mod disable muonVetoCandsForTag08
mod disable electronCandsForTag08templ
mod disable TaggingMuonMicroSelection
mod disable TaggingMuonMicroSelection"
```

This is intended as a temporary solution to make the TagVertex sequence to work. It requires to be fixed to access Tag Flavor informations.

Tag Vertex configuration

1) Commented setup for tagging in `PacMC/PmcPhysicsSequence.tcl`. Probably not optimal solution. Call for `PacMC/PmcTagVertexSequence.tcl` activated in `PacUser/BtoPiPiSequence.tcl`

2) Configure `PacUser/BtoPiPiSequence.tcl` as the snippet below and set `PacTagging true` in your `PacUser/example_PacTrk.tcl` in order to setup the Tag Vertexing sequence.

Snippet from `example_PacTrk.tcl`

```
# define analysis sequence
set PmcAnalysis PacUser/BtoPiPiSequence

# # Set PacTagging true if you need the Tag Vertex info
set PacTagging true

# create the PacMC sequence
sourceFoundFile PacMC/PacMC.tcl
```

Snippet from `example BtoPiPiSequence.tcl`

```
if { $PacTagging == "true" } {
    sourceFoundFile PacMC/PmcTagVertexSequence.tcl
    createTaggingDispatch BtoPiPiSequence SmpMyBtopipi
}
```

Configuration for Tag Vertex

Configure `PacUser/BtoPiPiSequence.tcl` as the snippet below and set `PacTagging true` in your `PacUser/example_PacTrk.tcl` in order to setup the Tag Vertexing sequence.

Snippet from `example_PacTrk.tcl`

```
# define analysis sequence
set PmcAnalysis PacUser/BtoPiPiSequence

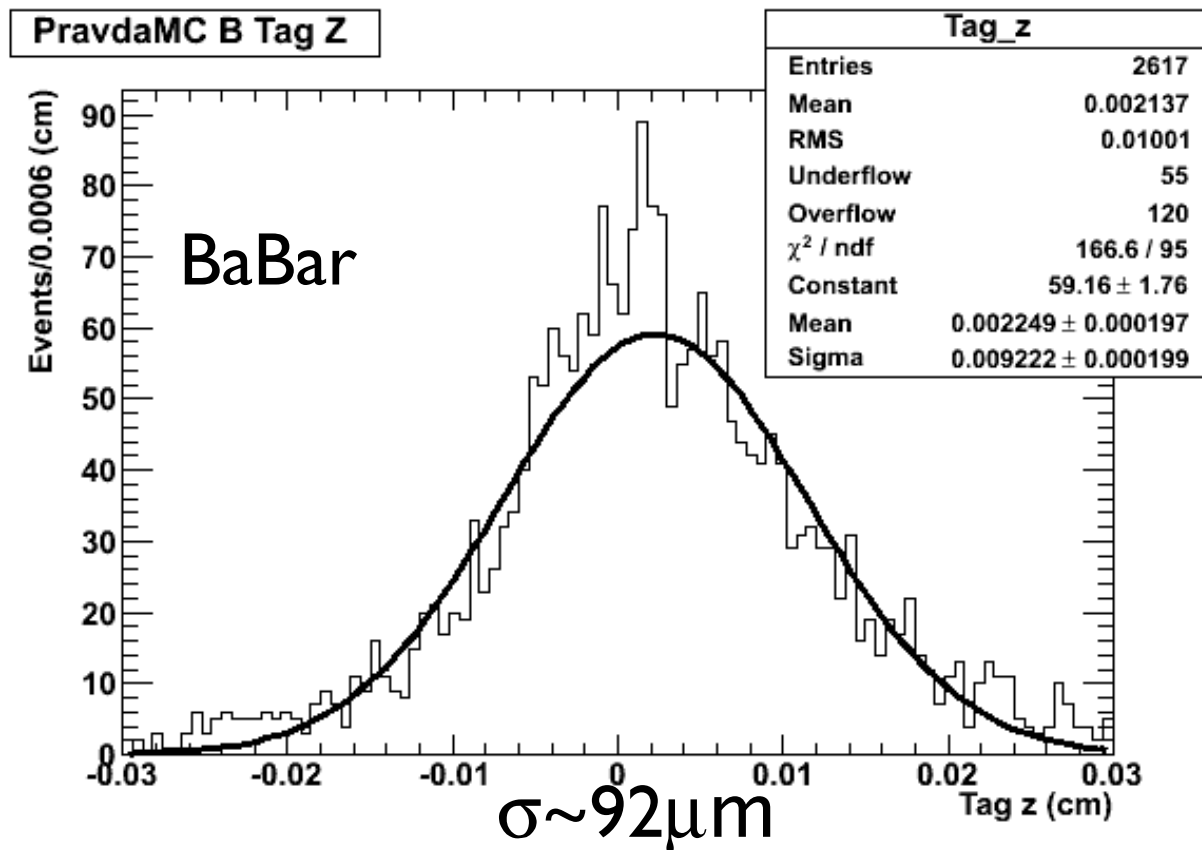
# # Set PacTagging true if you need the Tag Vertex info
set PacTagging true

# create the PacMC sequence
sourceFoundFile PacMC/PacMC.tcl
```

Snippet from `example BtoPiPiSequence.tcl`

```
if { $PacTagging == "true" } {
    sourceFoundFile PacMC/PmcTagVertexSequence.tcl
    createTaggingDispatch BtoPiPiSequence SmpMyBtopipi
}
```

Results for Tag Vertex: BaBar detector resolution



z coordinate resolution