

Table of Contents

Data formats in RecoEgamma.....	1
Review status.....	2

Data formats in RecoEgamma

Complete: ██████ Event content definition [↗](#)

InputTag/Module (Instance name)	Containers	Description
<i>Egamma electron collections (in RECO and AOD)</i>		
gsfElectronCores	reco::GsfElectronCoreCollection ↗	Offline electron object containing a minimal set of information: reference to GsfTrack, reference to SuperCluster (Egamma and/or PFlow cluster) and provenance information. The collection is unpreselected and contains electrons reconstructed either by Egamma or by PF algorithm.
gsfElectrons	reco::GsfElectronCollection ↗	Offline electron containing all the relevant observables and corrections. The collection is produced starting from GsfElectronCore and its modularity allows to easily recompute electron variables skipping the reconstruction step. Each electron has also a reference to the corresponding "core" partner. (standard offline electron collection)
electronGsfTracks	reco::GsfTrackCollection ↗	GsfTracks for GsfElectrons (produced in a dedicated module in the standard reconstruction sequence). They have been produced from the electronMergedSeeds described below.
eidTYPE		ValueMaps containing a reference to a CMS.GsfElectron and the result of the electron ID. The event has one Value Map per identification TYPE (eidLoose, eidRobust...) (standard electron ID computed in standard sequence)
siStripElectronToTrackAssociator	reco::ElectronCollection ↗	Electrons reconstructed using tracks seeded in the Si strip layers (not produced in standard sequence)
egammaCTFFinalFitWithMaterial	reco::TrackCollection ↗	Tracks for Si strip seeded electrons (not produced in standard sequence)
siStripElectrons	reco::SiStripElectronCollection ↗	Intermediate object for Si Strip electron reconstruction containing information about Si strip hits associated to the SuperCluster (not produced in standard sequence)
<i>Egamma photon collections (in RECO and AOD)</i>		
photonCore	reco::PhotonCoreCollection ↗	Photon objects containing reference to SuperCluster, Conversions and

		ElectronSeeds.
photons	reco::PhotonCollection ↗	Photons with all the related observables like vertex, shower shapes, isolation. Each photon has also a reference to the corresponding "core" partner. (standard reconstructed photon collection)
PhotonIDProd	reco::PhotonIDCollection ↗	Photons identification variables, calculated for corresponding photons. (standard reconstructed photon collection)
conversions	reco::ConversionCollection ↗	Converted photons
ckfOutInTracksFromConversions	reco::TrackCollection ↗	Conversion tracks from outside-in tracking.
ckfInOutTracksFromConversions	reco::TrackCollection ↗	Conversion tracks from inside-out tracking.
<i>Egamma electron collections (in RECO only)</i>		
gsfElectronsGsfFit	reco::GsfTrackExtraCollection ↗ reco::TrackExtraCollection ↗ TrackingRecHitCollection ↗	GsfTrackExtras, TrackExtras, TrackingRecHits
electronMergedSeeds	reco::ElectronSeedCollection ↗	Mixed collection of ElectronSeeds coming from Egamma and/or PFlow algorithms, with their parent SuperClusters and/or tracks. They are used as input for the production of electronGsfTracks.
ecalDrivenElectronSeeds	reco::ElectronSeedCollection ↗	Collection of ElectronSeeds with their parent SuperClusters, using the SuperCluster driven pixel matching algorithm, made for electron track seeding. That's one of the two collections which are mixed into electronMergedSeeds just above.
egammaCTFFinalFitWithMaterial	reco::TrackExtraCollection ↗	TrackExtras for Si strip seeded electrons (not produced in standard sequence)
<i>Egamma photon collections (in RECO only)</i>		
ckfOutInTracksFromConversions	reco::TrackExtraCollection ↗ TrackingRecHitCollection ↗	TrackExtras and TrackingRecHits for conversion tracks from outside-in tracking.
ckfInOutTracksFromConversions	reco::TrackExtraCollection ↗ TrackingRecHitCollection ↗	TrackExtras and TrackingRecHits for conversion tracks from inside-out tracking.

Review status

Reviewer/Editor and Date (copy from screen)	Comments
NancyMarinelli - 17 Jun 2009	Replace obsolete ConvertedPhoton with Conversion
MatteoSani - 06 Apr 2009	
MatteoSani - 02 Mar 2009	
KatiLassilaPerini - 25 May 2007	created template page

Responsible: David Chamont, Nancy Marinelli

Last reviewed by:

This topic: CMSPublic > SWGuideDataFormatRecoEgamma

Topic revision: r25 - 2011-11-29 - MantasStankevicius



Copyright &© 2008-2019 by the contributing authors. All material on this collaboration platform is the property of the contributing authors.

Ideas, requests, problems regarding TWiki? Send feedback