
Subject: Re: Access to clusters properties

Posted by [Dima Melnychuk](#) on Tue, 10 May 2011 09:22:27 GMT

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Hi Ronald,

My suggestions would be the following:

1) I assume that loop over crystals in individual cluster is loop over PndEmcDigi, which given cluster contain.

So instead

```
Int_t ncrystals= crystal_array->GetEntriesFast();
    for (Int_t nx = 0; nx < ncrystals; nx++) {

        ...etc...
    }
```

it would be

```
std::vector<Int_t>::const_iterator digi_iter;

const std::vector<Int_t> digiList = cl->DigiList();

for (digi_iter=digiList.begin();digi_iter!=digiList.end(); ++digi_iter)
{
    PndEmcDigi *digi = (PndEmcDigi *) DigiArray()->At(*digi_iter);

    // Whatever operation with digi
}
```

2) To access other cluster properties available in /emc/EmcData/PndEmcXCIMoments.h you should create object of this class and then access its methods.

In macro/emc/dedicated/reco_analys.C it is shown for PndEmcClusterEnergySums class and for PndEmcXCIMoments everything is similar.

At least you should add file containing PndEmcDigi TClonesArray

```
lhe->AddFriend("cbmsim", "digi_emc.root");
TClonesArray* digi_array=new TClonesArray("PndEmcDigi");
lhe->SetBranchAddress("EmcDigi",&digi_array);
```

```
PndEmcXCIMoments xclmoments(*cl, digiArray);
```

```
// Whatever Zernike moment you need
xclmoments.AbsZernikeMoment(1, 1);
```

Dima
