

# How I do some useful things

- **I will demonstrate:**
  - **Obtaining a good run list (with chosen component bits set)**
  - **Finding the luminosity in an arbitrary list of runs**
  - **Finding the filesets/files for a given dataset**
  - **Checking the status of a run from a UCNtuple analysis script**
- **Caveat:**
  - **Most of this is done by python scripts that can be found in */cdf/data21a/peonyisi***
  - **The scripts weren't written to have the most user-friendly interface... if someone would like to play with this (in particular the goodrun script), it would be helpful**

# Getting a good run list

## 1. Get a local copy of

*/cdf/data21a/peonyisi/goodrun.py*

## 2. Go to line ~ 30 and edit the component list.

**Example: if you want ISL good, add**

**“*RC.ISL\_STATUS=1 AND* ” as a line.**

## 3. Execute “*goodrun.py -l*” (“-l” means less verbose output)

## 4. Default good run list in

*/cdf/data10a/goodrunlist/goodruns*

**requires:**

*1.GOODRUN\_STATUS = 1*

*2.CAL\_STATUS=1*

*3.CMU\_STATUS=1*

*4.CMP\_STATUS=1*

*5.COT\_STATUS=1*

*6.B0INTEGRATEDLIVELUMI > 10*

# Finding the luminosity in a list of runs

**1. Put the list of runs in a file (say, “runlist”)**

**2. Execute**

```
/cdf/data21a/peonyisi/intlumin.py `cat  
runlist`
```

**3. Output is as follows:**

- **First, a list of runs: these are runs with no offline luminosity entered into the database**
- **Second: the total of the offline and online luminosities. Not to be trusted too much.**
- **Third: the “best values:” the sum of offline luminosities for runs where it's been computed, the sum of online luminosities for others**

# Getting files/filesets for a given dataset

1. Dataset must be official and entered in the Data File Catalog
2. Check what “book” your dataset is in – primary datasets tend to be in “FILECATALOG”, but secondary datasets, like the tau-met sample, may be in other books like “CDFPEXO”
3. If the book is “FILECATALOG”, you can use the files in /cdf/data21a/peonyisi ; otherwise make a copy and edit the “catalog” line
4. Run “*filesfromdataset.py [dataset]*” or “*filesetfromdataset.py [dataset]*”; the output is a list of files or filesets

# Good runs from a good run file in UCNtuple scripts

**1. The bash script “`~peonyisi/bin/cutkcc`” automatically compiles a C++ file, “`/cdf/data10a/goodrunlist/goodrun.C`”, which provides a function “goodrun”. This function returns a true/false value: true if the run number passed to the function is in the file**

**`/cdf/data10a/goodrunlist/goodruns`, false otherwise**

**2. There are two versions of the function:**

`bool goodrun(int runno)` and  
`bool goodrun(int runno, std::string filename)`.

**The second allows you to specify a specific file which contains a list of runs which you like.**

**3. To use in your analysis script, declare the goodrun functions in your script:**

`bool goodrun(int runno)`

**compile the `goodrun.C` file and link your executable to it (last two steps automated by `cutkcc` script)**