



# What is this Sample?

Josh McFayden

***“Monte Carlo in ATLAS” Tutorial***

29/09/2015

# Overview

- ▶ Here's a sample...
  - ▶ What is it?
  - ▶ What physics process?
  - ▶ What configuration of sim / digi / reco?
  - ▶ What is a "campaign"?
  - ▶ How do I look up a tag in AMI?
  - ▶ What do I look for in an AMI tag?
  - ▶ How do I find job options and understand what was going on in this sample?
- ▶ Even before that...

# I want a Z+jets sample...

- ▶ The first place to get an overview of available samples and details is the Physics Modelling Group central TWiki:
  - ▶ <https://twiki.cern.ch/twiki/bin/view/AtlasProtected/CentralMC15ProductionList>

## CentralMC15ProductionList

- ↳ [Introduction](#)
- ↳ [Important links:](#)
- ↳ [Legend](#)
- ↳ [Keywords schema](#)
- ↳ [Cronjob functionality and info for analyses](#)
- ↳ [Known Issues](#)
  - ↳ [Missing generator versions](#)
  - ↳ [Sample statistics](#)
  - ↳ [Filter efficiency for samples generated with EvtGen as after-butn \(Pythia6\):](#)
  - ↳ [Filter efficiency of Sherpa V+jets samples](#)
  - ↳ [Calculating filter efficiencies from log files](#)
    - ↳ [Computing generator filter efficiencies from log files on the GRID](#)
  - ↳ [PDF Info and Q scale](#)
  - ↳ [Henwig ++ x-sections at 0.0](#)
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  - ↳ [Gamma-jet Sherpa 2.1.1 x-sections](#)
  - ↳ [Few Negative weights in Powheg samples](#)
  - ↳ [JWxz, X>=8 slices for dijet samples](#)
  - ↳ [How to 'merge' ttbar and Wt inclusive samples with HT or MET filtered samples](#)
  - ↳ [How to combine diboson samples](#)
- ↳ [Central Page](#)
  - ↳ [ttbar samples](#)
  - ↳ [SingleTop samples](#)
  - ↳ [W+jets samples](#)
  - ↳ [Z+jets samples](#)
  - ↳ [Diboson samples](#)
  - ↳ [ttbar+X, X=V, VV, ttbar samples](#)
  - ↳ [Higgs samples](#)
  - ↳ [Exotics samples](#)
  - ↳ [SUSY samples](#)
  - ↳ [Triboson samples](#)
  - ↳ [Multijet samples](#)
  - ↳ [Minbias samples](#)
  - ↳ [Photon+jets, Diphoton](#)
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  - ↳ [Performance](#)
  - ↳ [Unsorted samples](#)

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↓ [Z+jets samples](#)

- ▶ Find links to detailed sample information and higher order cross section information:
  - ▶ [https://twiki.cern.ch/twiki/bin/viewauth/AtlasProtected/CentralMC15ProductionList#Z\\_jets\\_samples](https://twiki.cern.ch/twiki/bin/viewauth/AtlasProtected/CentralMC15ProductionList#Z_jets_samples)

## Z+jets samples

Link to all sample info	Tabular form (filter efficiency and cross section only)
<a href="#">Z+jets - Powheg + Pythia8 inclusive samples</a>	<a href="#">XsecSummaryZjetsPowPy8Incl</a>
<a href="#">Z+jets - Powheg + Pythia8 sliced samples</a>	<a href="#">XsecSummaryZjetsPowPy8Slice</a>
<a href="#">Z+jets - Sherpa - light filter</a>	<a href="#">XsecSummaryZjetsSherpaLight</a>
<a href="#">Z+jets - Sherpa - CFilter</a>	<a href="#">XsecSummaryZjetsSherpaC</a>
<a href="#">Z+jets - Sherpa - BFilter</a>	<a href="#">XsecSummaryZjetsSherpaB</a>
<a href="#">Z+jets - Madgraph + Pythia8</a>	<a href="#">XsecSummaryZjetsMadgraph</a>
<a href="#">Z+jets (others)</a>	<a href="#">XsecSummaryZjetsOther</a>

- ▶ **Sample info:** [MC15ZjetsMadgraphPy8SamplesPMG](#)
- ▶ **Cross section:** [XsecSummaryZjetsMadGraph](#)

## MC15ZjetsMadgraphPy8SamplesPMG

- ↓ MadGraph\_QCDZbbjj
- ↓ MadGraph\_EWKZbbjj
- ↓ MadGraph\_Zee\_Np0
- ↓ MadGraph\_Zee\_Np1
- ↓ MadGraph\_Zee\_Np2
- ↓ MadGraph\_Zee\_Np3
- ↓ MadGraph\_Zee\_Np4
- ↓ MadGraph\_Zmumu\_Np0
- ↓ MadGraph\_Zmumu\_Np1
- ↓ MadGraph\_Zmumu\_Np2
- ↓ MadGraph\_Zmumu\_Np3
- ↓ MadGraph\_Zmumu\_Np4
- ↓ MadGraph\_Ztautau\_Np0
- ↓ MadGraph\_Ztautau\_Np1
- ↓ MadGraph\_Ztautau\_Np2
- ↓ MadGraph\_Ztautau\_Np3
- ↓ MadGraph\_Ztautau\_Np4
- ↓ MadGraph\_Znunu\_Np0
- ↓ MadGraph\_Znunu\_Np1
- ↓ MadGraph\_Znunu\_Np2
- ↓ MadGraph\_Znunu\_Np3
- ↓ MadGraph\_Znunu\_Np4

MadGraph_Zee_Np0									
Full List of Available Derivations									
DSID (job option link)	Sim. type	Brief description	Generator versions	AMI Xsec [pb]	Filter eff.	Global K-factor (higher order xsec [pb])	Sample Stats (Link to AMI)	Comment	LastUpdated
361500	EVGEN	Gen+PS: <a href="#">MadGraph</a> +Pythia8+EvtGen Tune: A14 <a href="#">NNPDF23LO</a> PDF in ME: NULL		1401.6	1.0	1.232 ( <a href="#">2114.8057</a> )	<a href="#">e3898: 6890000</a>		
361500	FS (50 ns)	Gen+PS: <a href="#">MadGraph</a> +Pythia8+EvtGen Tune: A14 <a href="#">NNPDF23LO</a> PDF in ME: NULL		1401.6	1.0	1.232 ( <a href="#">2114.8057</a> )	<a href="#">e3898_s2608_s2183_r6630_r6264: 6843792</a>		
361500	FS (25 ns)	Gen+PS: <a href="#">MadGraph</a> +Pythia8+EvtGen Tune: A14 <a href="#">NNPDF23LO</a> PDF in ME: NULL		1401.6	1.0	1.232 ( <a href="#">2114.8057</a> )	<a href="#">e3898_s2608_s2183_r6869_r6282: 6873800</a>		

- ▶ A lot of information here!
- ▶ A summary of existing samples and number of events processed for different steps in the chain.

## MC15ZjetsMadgraphPy8SamplesPMG

- ↓ MadGraph\_QCDZbbjj
- ↓ MadGraph\_EWKZbbjj
- ↓ MadGraph\_Zee\_Np0**
- ↓ MadGraph\_Zee\_Np1
- ↓ MadGraph\_Zee\_Np2
- ↓ MadGraph\_Zee\_Np3
- ↓ MadGraph\_Zee\_Np4
- ↓ MadGraph\_Zmumu\_Np0
- ↓ MadGraph\_Zmumu\_Np1
- ↓ MadGraph\_Zmumu\_Np2
- ↓ MadGraph\_Zmumu\_Np3
- ↓ MadGraph\_Zmumu\_Np4
- ↓ MadGraph\_Ztautau\_Np0
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- ↓ MadGraph\_Ztautau\_Np2
- ↓ MadGraph\_Ztautau\_Np3
- ↓ MadGraph\_Ztautau\_Np4
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MadGraph_Zee_Np0										
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361500	PANDA link	EVGEN	+PS: Graph+Pythia8+EvtGen :: A14 NNPDF23LO in ME: NULL		1401.6	1.0	1.232 ( 2114.8057 )	<a href="#">e3898: 6890000</a>		
361500	PANDA link	EVGEN	+PS: Graph+Pythia8+EvtGen :: A14 NNPDF23LO in ME: NULL		1401.6	1.0	1.232 ( 2114.8057 )	<a href="#">e3898_s2608_s2183_r6630_r6264: 6843792</a>		
361500	PANDA link	FS (50 ns)	+PS: Graph+Pythia8+EvtGen :: A14 NNPDF23LO in ME: NULL		1401.6	1.0	1.232 ( 2114.8057 )	<a href="#">e3898_s2608_s2183_r6869_r6282: 6873800</a>		

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 Summary of existing samples and number  
 of events processed for different steps in  
 the chain.

Full/Fast simulation &  
 25ns/50ns reconstruction

## MC15ZjetsMadgraphPy8SamplesPMG

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- ↓ MadGraph\_EWKZbbjj
- ↓ MadGraph\_Zee\_Np0**
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361500	EVGEN	Gen+PS: <a href="#">MadGraph</a> +Pythia8+EvtGen Tune: A14 <a href="#">NNPDF23LO</a> PDF in ME: NULL		1401.6	1.0
361500	FS (50 ns)	Gen+PS: <a href="#">MadGraph</a> +Pythia8+EvtGen Tune: A14 <a href="#">NNPDF23LO</a> PDF in ME: NULL		1401.6	1.0
361500	FS (25 ns)	Gen+PS: <a href="#">MadGraph</a> +Pythia8+EvtGen Tune: A14 <a href="#">NNPDF23LO</a> PDF in ME: NULL		1401.6	1.0

### Sample Stats (Link to AMI)

Updated

e3898: 6890000

e3898\_s2608\_s2183\_r6630\_r6264:  
6843792

e3898\_s2608\_s2183\_r6869\_r6282:  
6873800

- ▶ A lot of information here
- ▶ A summary of existing samples of events processed for the chain.

**Numbers of events  
processed & corresponding tags**

- ▶ Lots of very useful information here too!

### XsecSummaryZjetsMadgraph

DSID	Sample	AMIXsec	BR or <u>FiltEff</u>	Total higher order xsec	K- factor	Higher order xsec sample
342195	mc15_13TeV.342195.MadGraphPythia8EvtGen_A14NNPDF23_QCDZbbjj_Incl	666.52	0.63217	Undefined	1.0	421.3539484
342196	mc15_13TeV.342196.MadGraphPythia8EvtGen_A14NNPDF23_EWKZbbjj_Incl	4.8598	0.68166	Undefined	1.0	3.312731268
361500	mc15_13TeV.361500.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0	1401.6	1.0	2114.8057	1.232	1726.7712
361501	mc15_13TeV.361501.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np1	211.99	1.0	2114.8057	1.232	261.17168
361502	mc15_13TeV.361502.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np2	67.305	1.0	2114.8057	1.232	82.91976
361503	mc15_13TeV.361503.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np3	18.679	1.0	2114.8057	1.232	23.012528
361504	mc15_13TeV.361504.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np4	7.291	1.0	2114.8057	1.232	8.982512
361505	mc15_13TeV.361505.MadGraphPythia8EvtGen_A14NNPDF23LO_Zmumu_Np0	1402.0	1.0	2114.8057	1.232	1727.264
361506	mc15_13TeV.361506.MadGraphPythia8EvtGen_A14NNPDF23LO_Zmumu_Np1	211.95	1.0	2114.8057	1.232	261.1224
361507	mc15_13TeV.361507.MadGraphPythia8EvtGen_A14NNPDF23LO_Zmumu_Np2	67.353	1.0	2114.8057	1.232	82.978896
361508	mc15_13TeV.361508.MadGraphPythia8EvtGen_A14NNPDF23LO_Zmumu_Np3	18.633	1.0	2114.8057	1.232	22.955856
361509	mc15_13TeV.361509.MadGraphPythia8EvtGen_A14NNPDF23LO_Zmumu_Np4	7.3013	1.0	2114.8057	1.232	8.9952016
361510	mc15_13TeV.361510.MadGraphPythia8EvtGen_A14NNPDF23LO_Ztautau_Np0	1397.8	1.0	2114.8057	1.232	1722.0896
361511	mc15_13TeV.361511.MadGraphPythia8EvtGen_A14NNPDF23LO_Ztautau_Np1	211.4	1.0	2114.8057	1.232	260.4448
361512	mc15_13TeV.361512.MadGraphPythia8EvtGen_A14NNPDF23LO_Ztautau_Np2	67.176	1.0	2114.8057	1.232	82.760832
361513	mc15_13TeV.361513.MadGraphPythia8EvtGen_A14NNPDF23LO_Ztautau_Np3	18.609	1.0	2114.8057	1.232	22.926288
361514	mc15_13TeV.361514.MadGraphPythia8EvtGen_A14NNPDF23LO_Ztautau_Np4	7.2749	1.0	2114.8057	1.232	8.9626768
361515	mc15_13TeV.361515.MadGraphPythia8EvtGen_A14NNPDF23LO_Znunu_Np0	7518.4	1.0	11373.	1.2283	9234.85072
361516	mc15_13TeV.361516.MadGraphPythia8EvtGen_A14NNPDF23LO_Znunu_Np1	1200.1	1.0	11373.	1.2283	1474.08283
361517	mc15_13TeV.361517.MadGraphPythia8EvtGen_A14NNPDF23LO_Znunu_Np2	387.16	1.0	11373.	1.2283	475.548628
361518	mc15_13TeV.361518.MadGraphPythia8EvtGen_A14NNPDF23LO_Znunu_Np3	110.08	1.0	11373.	1.2283	135.211264
361519	mc15_13TeV.361519.MadGraphPythia8EvtGen_A14NNPDF23LO_Znunu_Np4	43.389	1.0	11373.	1.2283	53.2947087

- ▶ Lots of very useful information here too!

### XsecSummaryZjetsMadgraph

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342195	mc15_13TeV.342195.MadGraphPythia8EvtGen_A14NNPDF23_QCDZbbjj_Incl	666.52	0.63217	Undefined	1.0	421.3539484
342196	mc15_13TeV.342196.MadGraphPythia8EvtGen_A14NNPDF23_EWKZbbjj_Incl	4.8598	0.68166	Undefined	1.0	3.312731268
361500	mc15_13TeV.361500.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0	1401.6	1.0	2114.8057	1.232	1726.7712
361501	mc15_13TeV.361501.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np1	211.99	1.0	2114.8057	1.232	261.17168
361502	mc15_13TeV.361502.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np2	67.305	1.0	2114.8057	1.232	82.91976
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361515	mc15_13TeV.361515.Mad				2283	9234.85072
361516	mc15_13TeV.361516.Mad				2283	1474.08283
361517	mc15_13TeV.361517.Mad				2283	475.548628
361518	mc15_13TeV.361518.Mad				2283	135.211264
361519	mc15_13TeV.361519.MadGraphPythia8EvtGen_A14NNPDF23LO_Znunu_Np4	43.389	1.0	11373.	1.2283	53.2947087

Information from AMI  
distilled into text file format  
for analysis framework.

# I have a dataset, what's in it?

- ▶ Usual real life situation:
  - ▶ Given a **dataset name** how do I find out the details of the sample?
- ▶ E.g.
  - ▶ mc15\_13TeV.999999.Generator\_TunePDF\_Process.e1111\_s2222\_s3333\_r4444\_r5555\_p6666

- ▶ Usual real life situation:
  - ▶ Given a **dataset name** how do I find out the details of the sample?
- ▶ E.g.
  - ▶ mc15\_13TeV.999999.Generator\_TunePDF\_Process.e1111\_s2222\_s3333\_r4444\_r5555\_p6666
    - Project: mc15\_13TeV
    - Dataset ID: 999999
    - Physics short: Generator\_TunePDF\_Process
    - Tags: e1111\_s2222\_s3333\_r4444\_r5555\_p6666

## ▶ Physics short

- ▶ Format (partially enforced by Generate\_tf.py) already gives you a lot of detail:
  - ▶ **GeneratorShowerAfterburner\_ShowerTunePDF\_Process\_Filter/Detail**
- ▶ *E.g.*
  - ▶ *MadGraphPythia8EvtGen\_A14NNPDF23LO\_Zee\_Np4*
  - ▶ **Generator:** MadGraph
  - ▶ **Shower:** Pythia8
  - ▶ **Afterburner:** EvtGen
  - ▶ **Tune:** A14
  - ▶ **PDF:** NNPDF2.3LO
  - ▶ **Process:**  $Z \rightarrow ee$
  - ▶ **Filter/Detail:** Np4 (i.e. this is the 4-additional parton sample)
    - ▶ Could also have other details here, e.g. filter name, mass of particles, etc.

## ▶ Physics short

- ▶ Format (partially enforced by Generate\_tf.py) already gives you a lot of detail:
  - ▶ **Generator****Shower****Afterburner****ShowerTune****PDF****Process****Filter/Detail**
- ▶ *E.g.*
  - ▶ *MadGraphPythia8EvtGen\_A14NNPDF23LO\_Zee\_Np4*  
*(limited to 60 chars, abbreviated versions available)*
  - ▶ **Generator:** MadGraph
  - ▶ **Shower:** Pythia8
  - ▶ **Afterburner:** EvtGen
  - ▶ **Tune:** A14
  - ▶ **PDF:** NNPDF2.3LO
  - ▶ **Process:** Z→ee
  - ▶ **Filter/Detail:** Np4 (i.e. this is the 4-additional parton sample)
    - ▶ Could also have other details here, e.g. filter name, mass of particles, etc.



MGPy8EG

# Dataset name | Tags

## ▶ Tags

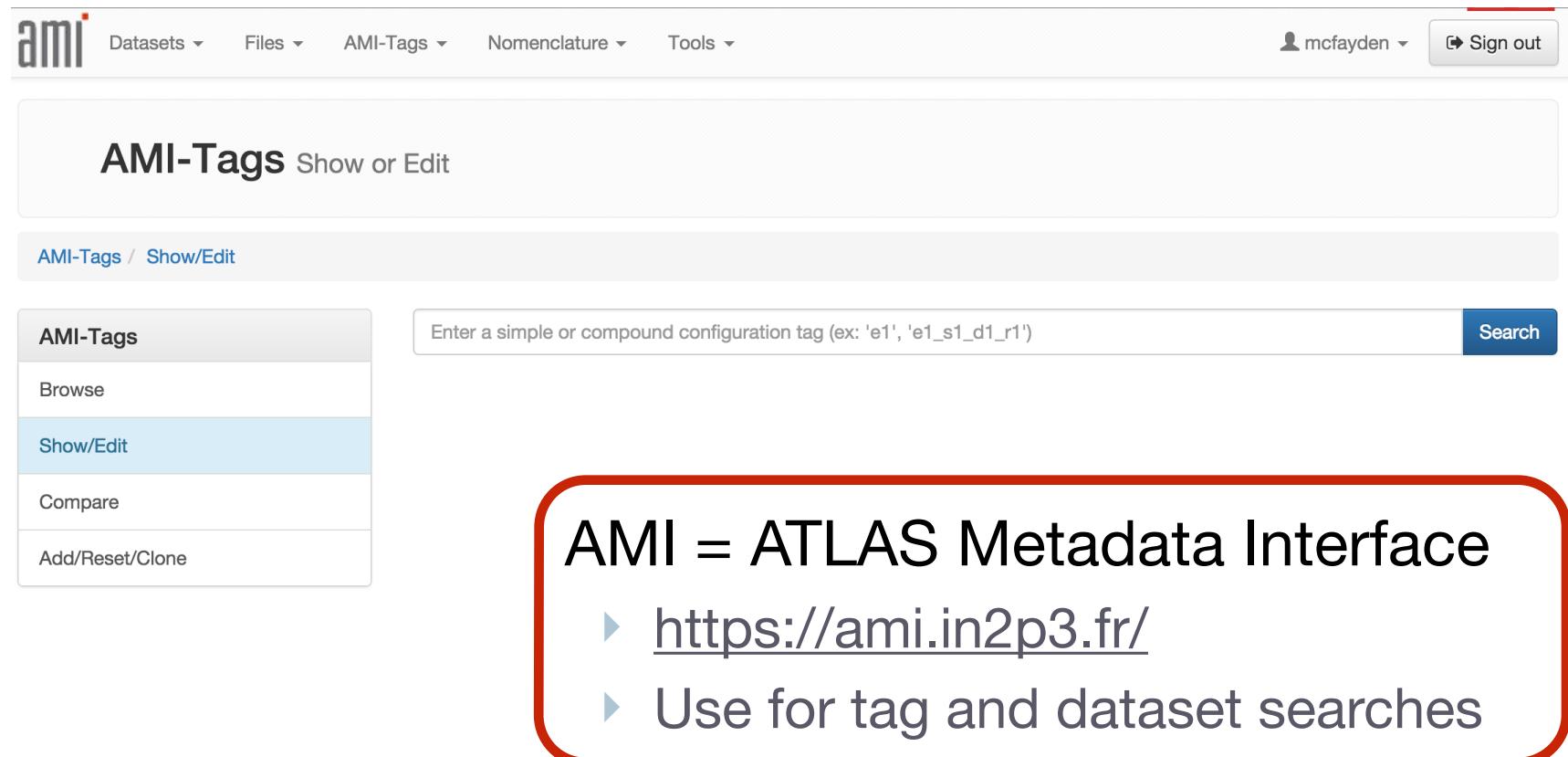
- ▶ Tags encode huge amounts of information about how a sample was processed.
- ▶ **Tag = Transform to execute and associated parameters**
- ▶ E.g. **e1111\_s2222\_s3333\_r4444\_r5555\_p6666**  
**e1111\_a2222\_a3333\_a4444\_r5555\_p6666**
  - ▶ **e-tag = event generation**
  - ▶ **s-tag = Full simulation**
  - ▶ (2nd) **s-tag = Full simulation merging**
  - ▶ **a-tag = Fast simulation**
  - ▶ (2nd) **a-tag = Fast simulation merging**
  - ▶ **r-tag = reconstruction**
  - ▶ (3rd) **a-tag = Atlfast reconstruction**
  - ▶ (2nd) **r-tag = reconstruction merging**
  - ▶ **p-tag = derivation**
- ▶ **Simulation and reconstruction** (and associated merging):
  - ▶ tags are defined by the production coordinators - only a few exist for a given campaign
- ▶ **Event generation:**
  - ▶ New tag per request

# Example | Tags

- ▶ mc15\_13TeV.361500.MadGraphPythia8EvtGen\_A14NNPDF23LO\_Zee\_Np0
  - ▶ e3898\_s2608\_s2183\_r6630\_r6264
  - ▶ e3898\_s2608\_s2183\_r6869\_r6282
- ▶ **e3898 = Evgen**
- ▶ **s2608 = Full simulation**
- ▶ s2183 = Simulation merge
- ▶ **r6630 = Digitisation+Reconstruction 50ns**
- ▶ **r6869 = Digitisation+Reconstruction 25ns**
- ▶ r6264/r6282 = reconstruction merge

- ▶ **Simulation and reconstruction tag details** are on this page:
  - ▶ <https://twiki.cern.ch/twiki/bin/view/AtlasProtected/AtlasProductionGroupMC15a>
  - ▶ Including whether a reconstruction tag is **25ns or 50ns bunch spacing**

- ▶ Details of tag configuration can be found on **AMI**
- ▶ [https://ami.in2p3.fr/new/?subapp=amiTags\\_show](https://ami.in2p3.fr/new/?subapp=amiTags_show)

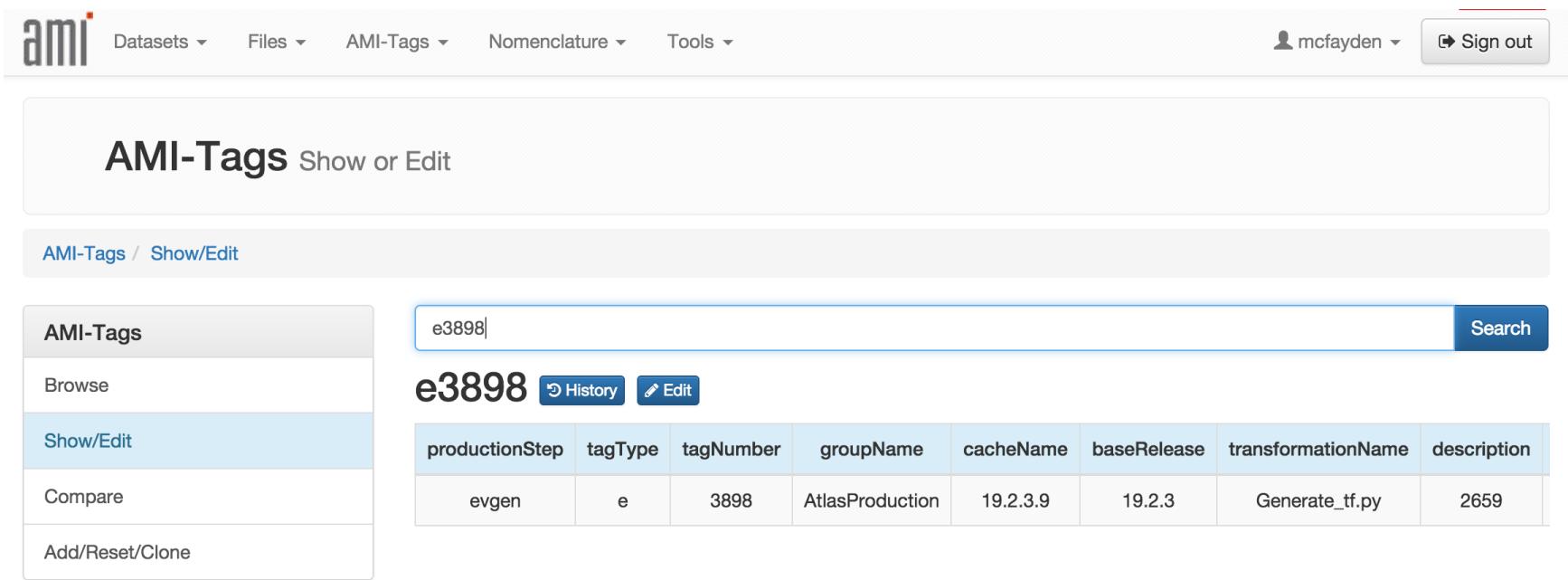


The screenshot shows the AMI Tags interface. At the top, there is a navigation bar with links for Datasets, Files, AMI-Tags, Nomenclature, and Tools. On the right, there is a user profile for 'mcfayden' and a 'Sign out' button. Below the navigation bar, the title 'AMI-Tags Show or Edit' is displayed. Underneath, a breadcrumb trail shows 'AMI-Tags / Show/Edit'. A sidebar on the left contains links for AMI-Tags (selected), Browse, Show/Edit (highlighted in blue), Compare, and Add/Reset/Clone. To the right of the sidebar is a search bar with the placeholder 'Enter a simple or compound configuration tag (ex: 'e1', 'e1\_s1\_d1\_r1')' and a 'Search' button. A red rounded rectangle highlights the text 'AMI = ATLAS Metadata Interface' and the two bullet points below it.

AMI = ATLAS Metadata Interface

- ▶ <https://ami.in2p3.fr/>
- ▶ Use for tag and dataset searches

- ▶ Details of tag configuration can be found on AMI
  - ▶ [https://ami.in2p3.fr/new/?subapp=amiTags\\_show](https://ami.in2p3.fr/new/?subapp=amiTags_show)

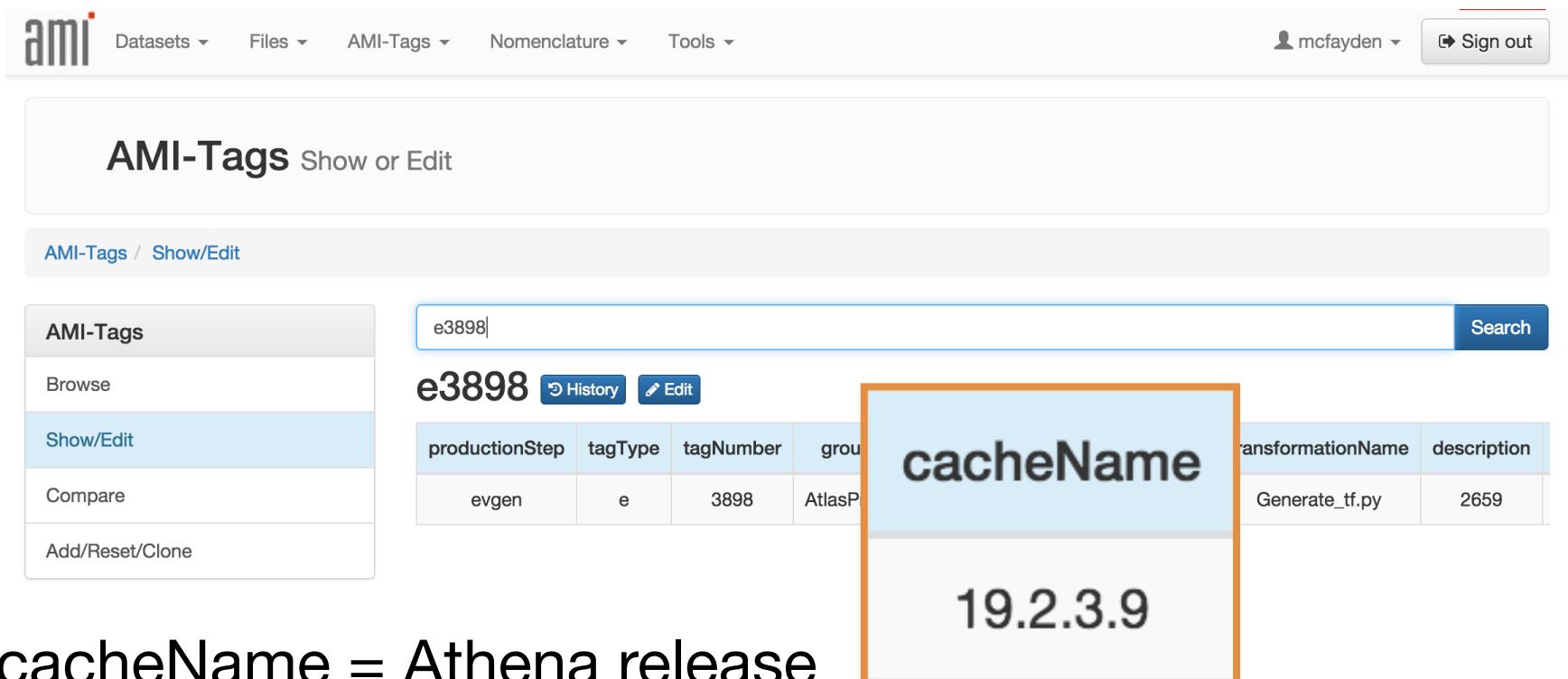


The screenshot shows the AMI-Tags interface. On the left is a sidebar with options: AMI-Tags (selected), Browse, Show/Edit (highlighted in blue), Compare, and Add/Reset/Clone. The main area has a search bar with 'e3898' typed in, a 'Search' button, and two links: 'History' and 'Edit'. Below is a table with columns: productionStep, tagType, tagNumber, groupName, cacheName, baseRelease, transformationName, and description. The data for tag e3898 is: evgen, e, 3898, AtlasProduction, 19.2.3.9, 19.2.3, Generate\_tf.py, 2659.

productionStep	tagType	tagNumber	groupName	cacheName	baseRelease	transformationName	description
evgen	e	3898	AtlasProduction	19.2.3.9	19.2.3	Generate_tf.py	2659

- ▶ Look at evgen tag

- ▶ Details of tag configuration can be found on AMI
  - ▶ [https://ami.in2p3.fr/new/?subapp=amiTags\\_show](https://ami.in2p3.fr/new/?subapp=amiTags_show)



AMI-Tags Show or Edit

AMI-Tags / Show/Edit

AMI-Tags

e3898 | Search

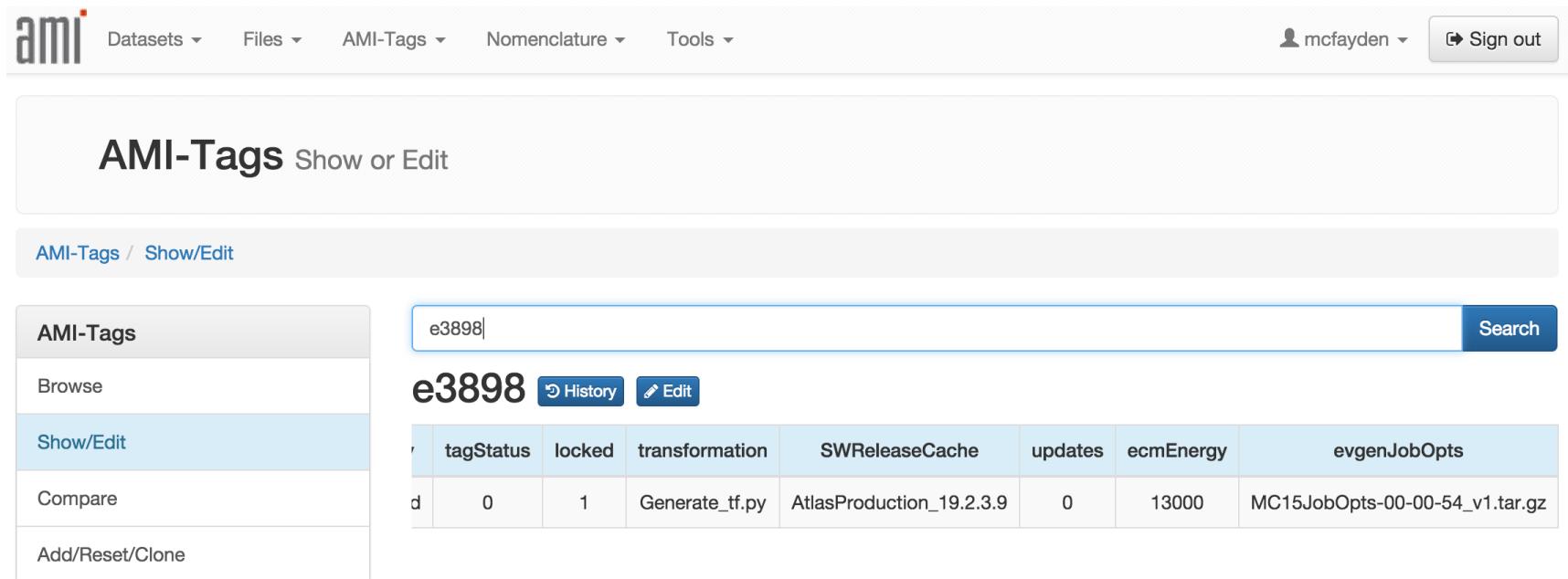
e3898 History Edit

productionStep	tagType	tagNumber	group	transformationName	description
evgen	e	3898	AtlasP	Generate_tf.py	2659

cacheName  
19.2.3.9

- ▶ cacheName = Athena release
  - ▶ Can be useful for reproducing sample or getting more detailed information on sample

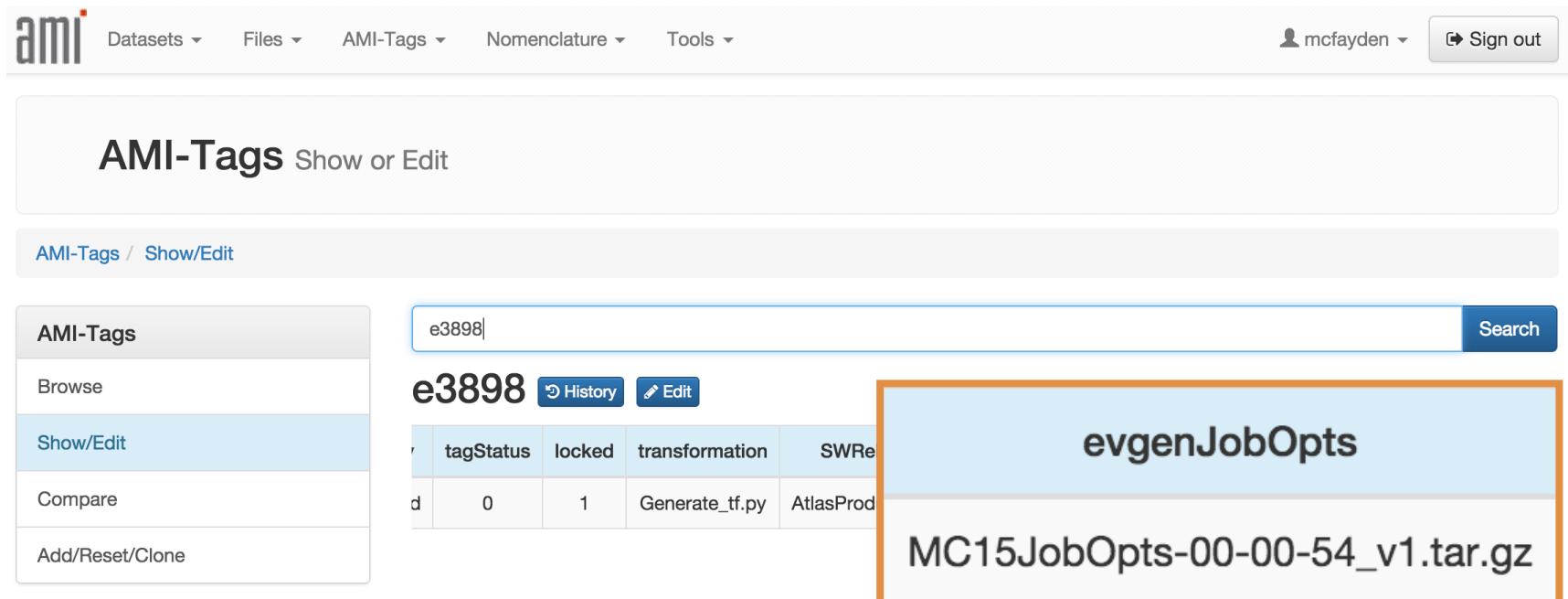
- ▶ Details of tag configuration can be found on AMI
- ▶ [https://ami.in2p3.fr/new/?subapp=amiTags\\_show](https://ami.in2p3.fr/new/?subapp=amiTags_show)



The screenshot shows the AMI-Tags interface. On the left is a sidebar with options: AMI-Tags (selected), Browse, Show/Edit (highlighted in blue), Compare, and Add/Reset/Clone. The main area has a search bar with 'e3898' and a 'Search' button. Below it, a table displays tag details:

	tagStatus	locked	transformation	SWReleaseCache	updates	ecmEnergy	evgenJobOpts
d	0	1	Generate_tf.py	AtlasProduction_19.2.3.9	0	13000	MC15JobOpts-00-00-54_v1.tar.gz

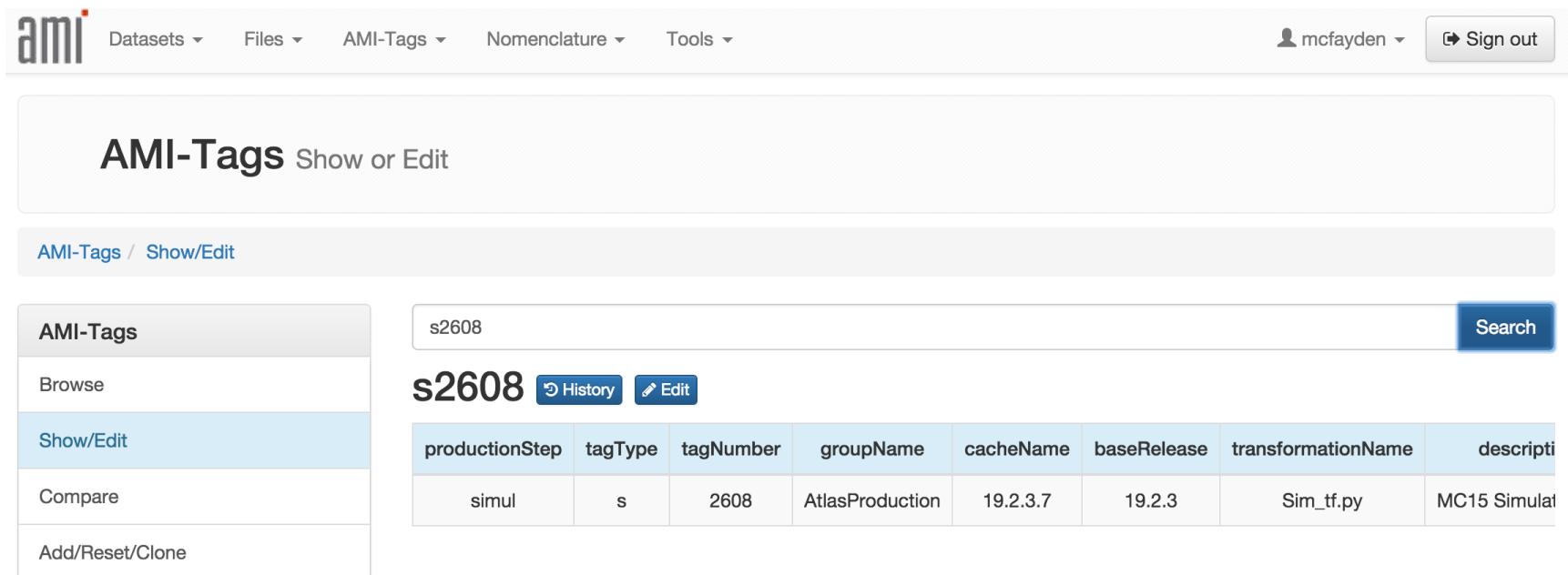
- ▶ Details of tag configuration can be found on AMI
  - ▶ [https://ami.in2p3.fr/new/?subapp=amiTags\\_show](https://ami.in2p3.fr/new/?subapp=amiTags_show)



The screenshot shows the AMI-Tags interface. On the left is a sidebar with options: Browse, Show/Edit (which is selected and highlighted in blue), Compare, and Add/Reset/Clone. The main area has a search bar at the top with the value "e3898". Below the search bar, the tag "e3898" is displayed with "History" and "Edit" buttons. A table follows, with one row visible containing columns: tagStatus (0), locked (1), transformation (Generate\_tf.py), and SWRe. To the right of the table, a callout box highlights the "evgenJobOpts" field, which contains the value "MC15JobOpts-00-00-54\_v1.tar.gz".

- ▶ evgenJobOpts = tarball containing jobOptions
  - ▶ Only contains jobOptions required for a single request

- ▶ Details of tag configuration can be found on AMI
  - ▶ [https://ami.in2p3.fr/new/?subapp=amiTags\\_show](https://ami.in2p3.fr/new/?subapp=amiTags_show)

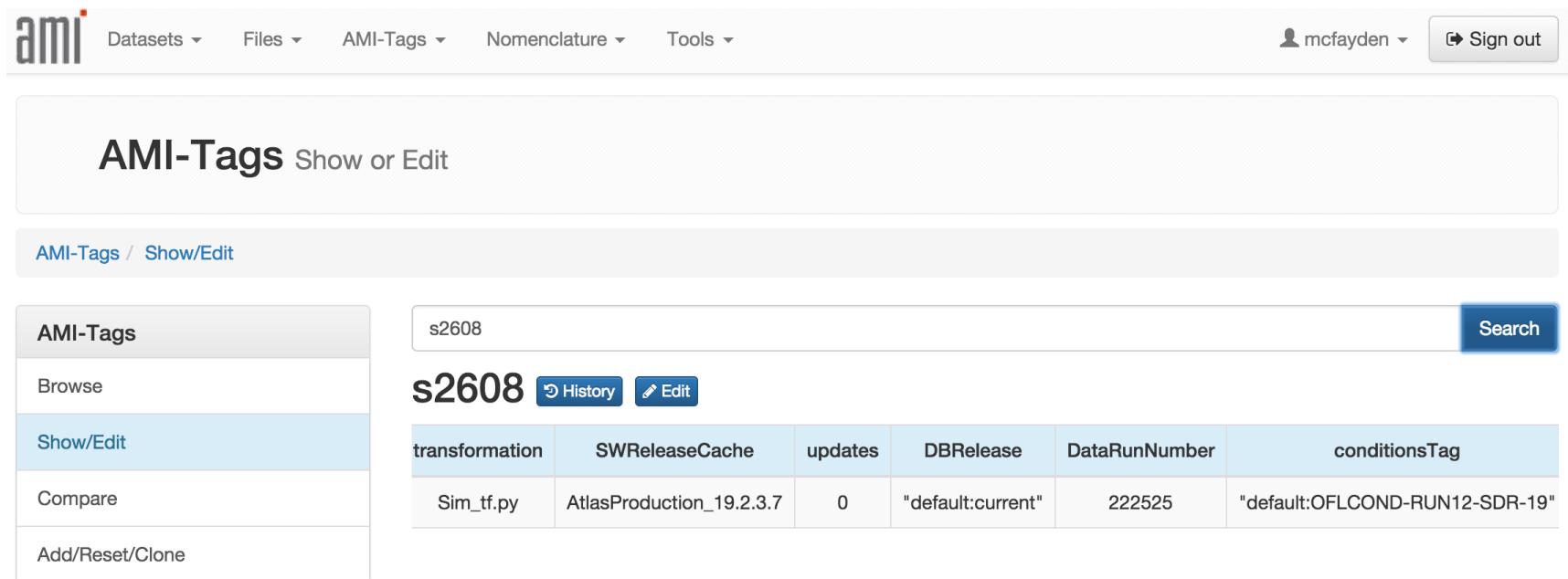


The screenshot shows the AMI Tags interface. On the left is a sidebar with options: AMI-Tags (selected), Browse, Show/Edit (highlighted in blue), Compare, and Add/Reset/Clone. The main area has a search bar with 's2608' and a 'Search' button. Below it, the tag details for 's2608' are shown: History (link), Edit (button). A table displays the following data:

productionStep	tagType	tagNumber	groupName	cacheName	baseRelease	transformationName	descripti
simul	s	2608	AtlasProduction	19.2.3.7	19.2.3	Sim_tf.py	MC15 Simulat

- ▶ Same for simulation tag!

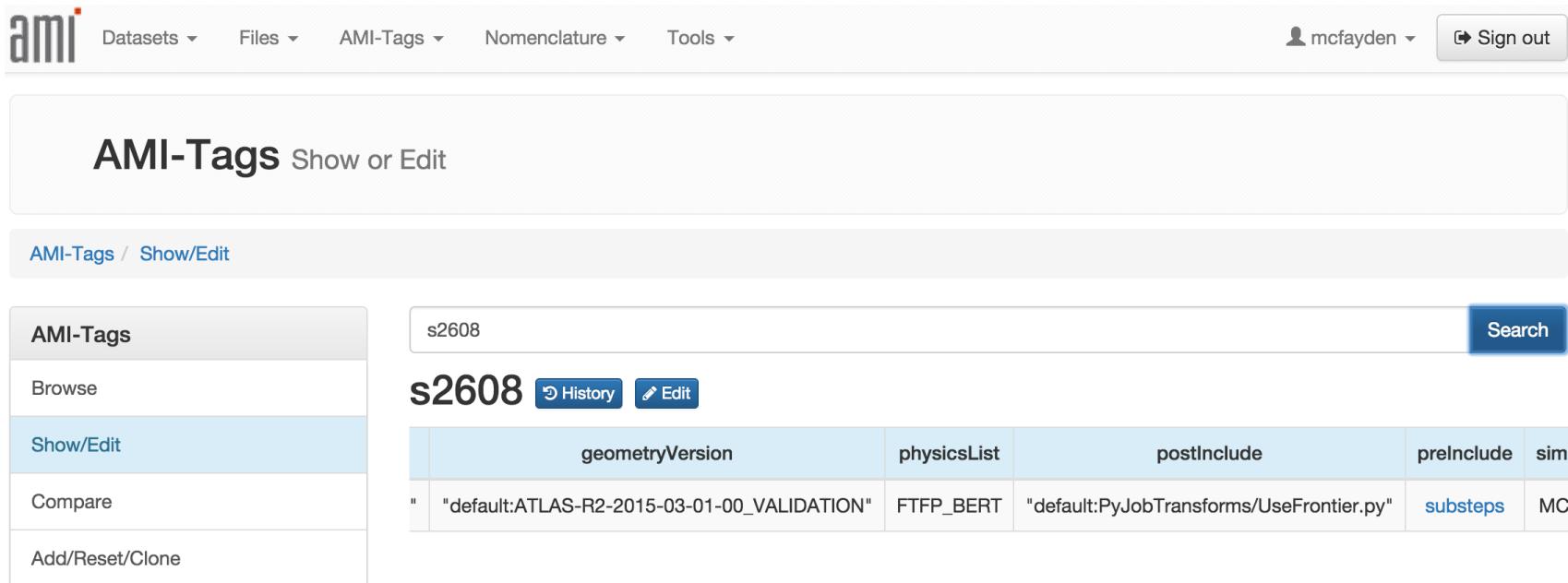
- ▶ Details of tag configuration can be found on AMI
- ▶ [https://ami.in2p3.fr/new/?subapp=amiTags\\_show](https://ami.in2p3.fr/new/?subapp=amiTags_show)



The screenshot shows the AMI Tags interface. On the left is a sidebar with options: AMI-Tags (selected), Browse, Show/Edit (highlighted in blue), Compare, and Add/Reset/Clone. The main area has a search bar with 's2608' and a 'Search' button. Below it, the tag details for 's2608' are shown: transformation (Sim\_tf.py), SWReleaseCache (AtlasProduction\_19.2.3.7), updates (0), DBRelease ("default:current"), DataRunNumber (222525), and conditionsTag ("default:OFLCOND-RUN12-SDR-19"). There are also 'History' and 'Edit' buttons.

transformation	SWReleaseCache	updates	DBRelease	DataRunNumber	conditionsTag
Sim_tf.py	AtlasProduction_19.2.3.7	0	"default:current"	222525	"default:OFLCOND-RUN12-SDR-19"

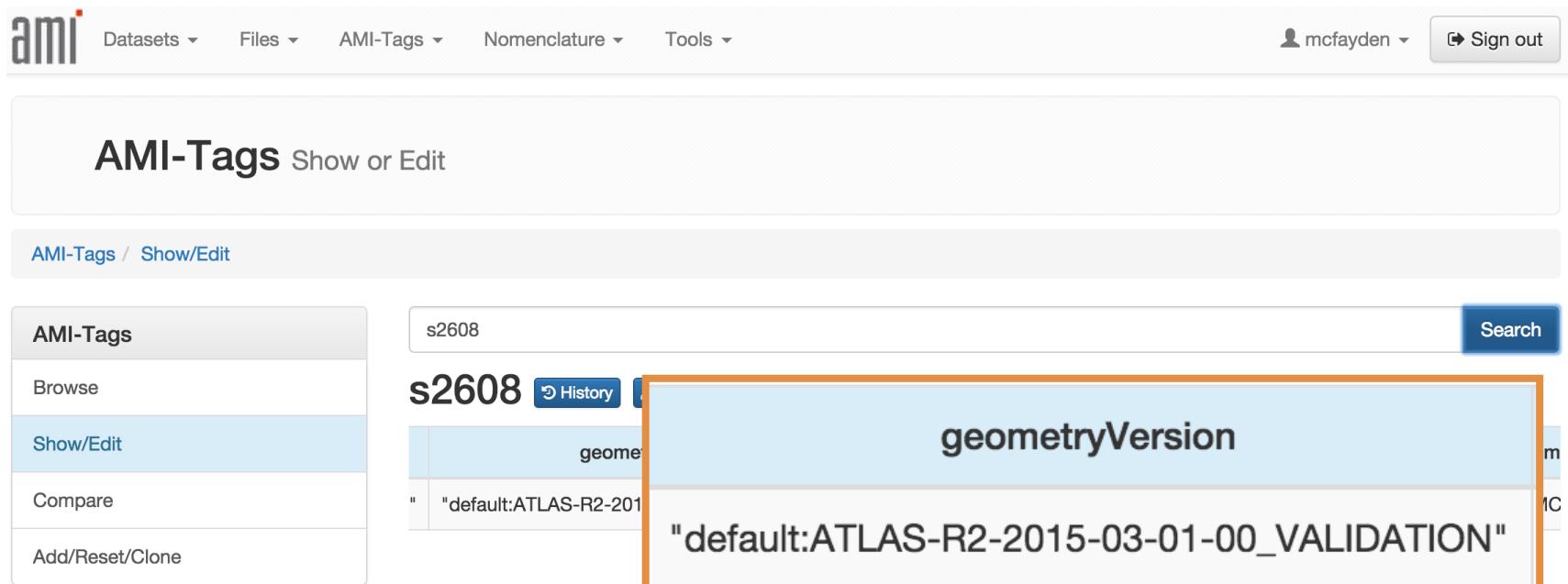
- ▶ Details of tag configuration can be found on AMI
- ▶ [https://ami.in2p3.fr/new/?subapp=amiTags\\_show](https://ami.in2p3.fr/new/?subapp=amiTags_show)



The screenshot shows the AMI Tags interface. The top navigation bar includes links for Datasets, Files, AMI-Tags, Nomenclature, Tools, and user authentication (mcfayden, Sign out). The main title is "AMI-Tags Show or Edit". Below this, a breadcrumb navigation shows "AMI-Tags / Show/Edit". On the left, a sidebar menu lists "AMI-Tags", "Browse", "Show/Edit" (which is highlighted in blue), "Compare", and "Add/Reset/Clone". The main content area displays tag details for "s2608". It includes a search bar with the value "s2608", a "Search" button, and buttons for "History" and "Edit". A table provides detailed configuration information:

	geometryVersion	physicsList	postInclude	preInclude	sim
"	"default:ATLAS-R2-2015-03-01-00_VALIDATION"	FTFP_BERT	"default:PyJobTransforms/UseFrontier.py"	substeps	MC

- ▶ Details of tag configuration can be found on AMI
  - ▶ [https://ami.in2p3.fr/new/?subapp=amiTags\\_show](https://ami.in2p3.fr/new/?subapp=amiTags_show)



The screenshot shows the AMI-Tags interface. On the left is a sidebar with options: AMI-Tags (selected), Browse, Show/Edit (highlighted in blue), Compare, and Add/Reset/Clone. The main area has a search bar at the top with the text "s2608" and a "Search" button. Below the search bar, the tag "s2608" is listed with a "History" link. A detailed view of the tag is shown in a box, with the "geometryVersion" field highlighted by an orange rectangle. The value of "geometryVersion" is "default:ATLAS-R2-2015-03-01-00\_VALIDATION".

- ▶ **geometryVersion = ATLAS geometry**

# Generator versions from release

- ▶ Generator versions for an Athena release - **webpage**:
  - ▶ <http://atlas-project-mc-production.web.cern.ch/atlas-project-mc-production/Generators/AtlasProduction>

Generator	Releases
Tauolapp-01-00-05-01	17.1.4.6, 17.1.4.7
Tauolapp-01-00-07-00	17.2.2.4
Tauolapp-01-00-07-01	17.2.2.5, 17.2.2.6, 17.2.2.7
Tauolapp-01-01-01-02	17.2.10.4, 17.2.10.5, 17.2.10.6, 17.2.10.7, 19.2.4.5.2
Sherpa-00-00-18	13.0.40.2
Sherpa-02-01-01-06	19.2.4.1, 19.2.3.9, 19.2.3.10, 19.2.3.11, 19.2.5, 20.3.3.2, 20.3.4, 20.3.0.5, 20.3.3.2
Sherpa-00-00-33-00	15.6.9.15

Pythia8-02-05-03

19.2.4.5, 19.2.4.6, 19.2.4.7, 19.2.4.8, 19.2.4.9, 19.2.4.10, 20.3.0.4, 20.3.0.5

Check log.generate from example yesterday

- ▶ This information will go into AMI eventually

# Generator versions from release

```
@lxplus0068 ~ >: setupATLAS
...Type localSetupAGIS to setup AGIS
...Type localSetupAtlantis to setup Atlantis
...Type localSetupDQ2Client to use DQ2 Client
...Type localSetupEIClient to setup EIClient
...Type localSetupEmi to use emi
...Type localSetupFAX to use FAX
...Type localSetupGanga to use Ganga
...Type localSetupGcc to use alternate gcc
...Type localSetupPacman to use Pacman
...Type localSetupPandaClient to use Panda Client
...Type localSetupPyAMI to setup pyAMI
...Type localSetupPoD to setup Proof-on-Demand
...Type localSetupROOT to setup (standalone) ROOT
...Type localSetupRucioClients to setup rucio-clients
...Type localSetupSFT to setup SFT packages
...Type localSetupXRootD to setup XRootD
...Type showVersions to show versions of installed software
...Type asetup to setup a release (changeASetup to change asetup version)
...Type rcSetup to setup an ASG release (changeRCSetup to change rcSetup ver.)
...Type diagnostics for diagnostic tools
...Type helpMe for more help
...Type printMenu to show this menu
```

## 19 Jun 2015

You are encouraged to use rucio instead of DQ2 clients, type

localSetupRucioClients

For more info: <https://twiki.cern.ch/twiki/bin/view/AtlasComputing/RucioClientsHowTo>

## 18 Sep 2015

lsetup (for localsetup) is available. Try it out:  
setupATLAS --test=alrbV2

See:

<https://twiki.atlas-canada.ca/bin/view/AtlasCanada/ATLASLocalRootBase2>

```
@lxplus0068 ~ >: asetup 19.2.4.10,here
```

```
Using AtlasProduction/19.2.4.10 [cmt] with platform x86_64-slc6-gcc47-opt
  at /cvmfs/atlas.cern.ch/repo/sw/software/x86_64-slc6-gcc47-opt/19.2.4
```

```
Test area: /afs/cern.ch/user/m/mcfayden
```

```
@lxplus0068 ~ >: cmt show versions External/Pythia8
```

```
External/Pythia8 Pythia8-02-05-03 /cvmfs/atlas.cern.ch/repo/sw/software/x86_64-slc6-gcc47-opt/19.2.4/AtlasProduction/19.2.4.10
External/Pythia8 Pythia8-01-86-00 /cvmfs/atlas.cern.ch/repo/sw/software/x86_64-slc6-gcc47-opt/19.2.4/AtlasSimulation/19.2.4
```

- ▶ Generator versions for an Athena release - **command line**
- ▶ Use **cmt show versions** command in Athena:
- ▶ *(does not work for all generators!)*

# Example | Finding JobOptions

- ▶ When trying to find jobOptions it's all about the DSID:
  - ▶ mc15\_13TeV.999999...
- ▶ All mc15 jobOptions are found here:
  - ▶ <https://svnweb.cern.ch/trac/atlasoff/browser/Generators/MC15JobOptions/trunk/>
- ▶ The jobOptions live in the share/DSID[123]xxx folder
  - ▶ E.g. mc15\_13TeV.361500.MadGraphPythia8EvtGen\_A14NNPDF23LO\_Zee\_Np0.evgen.e3898

# Example | Finding JobOptions

- When trying to find jobOptions it's all about the DSID:
  - mc15\_13TeV.999999...
- All mc15 jobOptions are found here:
  - <https://svnweb.cern.ch/trac/atlasoff/browser/Generators/MC15JobOptions/trunk/>
- The jobOptions live in the share/DSID[123]xxx folder
  - E.g. mc15\_13TeV.361500.MadGraphPythia8EvtGen\_A14NNPDF23LO\_Zee\_Np0.evgen.e3898
  - Lives in share/DSID361xxx
    - [https://svnweb.cern.ch/trac/atlasoff/browser/Generators/MC15JobOptions/trunk/share/DSID361xxx/MC15.361500.MadGraphPythia8EvtGen\\_A14NNPDF23LO\\_Zee\\_Np0.py](https://svnweb.cern.ch/trac/atlasoff/browser/Generators/MC15JobOptions/trunk/share/DSID361xxx/MC15.361500.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0.py)

File	Last modified	Size	Age	Owner	Description
MC15.361484.Sherpa_C110_Ztautau_Mll10to40_Pt0_70_BFilter.py	2015-07-10 10:47	1.4 KB	6 months	onofrio	low mass DY sherpa
MC15.361485.Sherpa_C110_Ztautau_Mll10to40_Pt0_70_BVeto.py	2015-07-10 10:47	1.5 KB	6 months	onofrio	low mass DY sherpa
MC15.361486.Sherpa_C110_Ztautau_Mll10to40_Pt70_140_BFilter.py	2015-07-10 10:47	1.5 KB	6 months	onofrio	low mass DY sherpa
MC15.361487.Sherpa_C110_Ztautau_Mll10to40_Pt70_140_BVeto.py	2015-07-10 10:47	1.5 KB	6 months	onofrio	low mass DY sherpa
MC15.361488.Sherpa_C110_Ztautau_Mll10to40_Pt140_400_BFilter.py	2015-07-10 10:47	1.5 KB	6 months	onofrio	low mass DY sherpa
MC15.361489.Sherpa_C110_Ztautau_Mll10to40_Pt140_400_BVeto.py	2015-07-10 10:47	1.5 KB	6 months	onofrio	low mass DY sherpa
MC15.361490.Sherpa_C110_Ztautau_Mll10to40_Pt400_E_CMS_BVeto.py	2015-07-10 10:47	1.5 KB	6 months	onofrio	low mass DY sherpa
MC15.361491.Sherpa_C110_Ztautau_Mll10to40_Pt400_E_CMS_BFilter.py	2015-07-10 10:47	1.5 KB	6 months	onofrio	low mass DY sherpa
MC15.361500.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0.py	2015-07-10 10:47	62 bytes	5 months	mcfayden	Adding MGPy8 Vjets JOs with new DSIDs and small mod
MC15.361501.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np1.py	2015-07-10 10:47	62 bytes	5 months	mcfayden	Adding MGPy8 Vjets JOs with new DSIDs and small mod
MC15.361502.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np2.py	2015-07-10 10:47	62 bytes	5 months	mcfayden	Adding MGPy8 Vjets JOs with new DSIDs and small mod
MC15.361503.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np3.py	2015-07-10 10:47	62 bytes	5 months	mcfayden	Adding MGPy8 Vjets JOs with new DSIDs and small mod
MC15.361504.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np4.py	2015-07-10 10:47	144 bytes	5 months	mcfayden	Adding MGPy8 Vjets JOs with new DSIDs and small mod
MC15.361505.MadGraphPythia8EvtGen_A14NNPDF23LO_Zmumu_Np0.py	2015-07-10 10:47	62 bytes	5 months	mcfayden	Adding MGPy8 Vjets JOs with new DSIDs and small mod
MC15.361506.MadGraphPythia8EvtGen_A14NNPDF23LO_Zmumu_Np1.py	2015-07-10 10:47	62 bytes	5 months	mcfayden	Adding MGPy8 Vjets JOs with new DSIDs and small mod
MC15.361507.MadGraphPythia8EvtGen_A14NNPDF23LO_Zmumu_Np2.py	2015-07-10 10:47	62 bytes	5 months	mcfayden	Adding MGPy8 Vjets JOs with new DSIDs and small mod
MC15.361508.MadGraphPythia8EvtGen_A14NNPDF23LO_Zmumu_Np3.py	2015-07-10 10:47	62 bytes	5 months	mcfayden	Adding MGPy8 Vjets JOs with new DSIDs and small mod

- ▶ MC15.361500.MadGraphPythia8EvtGen\_A14NNPDF23LO\_Zee\_Np0.py
  - ▶ These are known as “top” jobOptions but often just include other files:

source: **Generators / MC15JobOptions / trunk / share / DSID361xxx / MC15.361500.MadGraphPythia8EvtGen\_A14NNPDF23LO\_Zee\_Np0.py**

**Last change on this file was 666389, checked in by mcfayden, 5 months ago**

Adding MGPy8 Vjets JOs with new DSIDs and small modifications

**File size:** 62 bytes

Line
1 include('MC15JobOptions/MadGraphControl_Zjets_LO_Pythia8.py')

- ▶ Top jobOptions often include other files
  - ▶ Usually these are from the common/ directory:  
<https://svnweb.cern.ch/trac/atlasoff/browser/Generators/>

atlasoff

logged in as mcfayden | [Logout](#) | [Preferences](#) | [Help/Guide](#) | [About Trac](#)

[Wiki](#) [Timeline](#) [Roadmap](#) **Browse Source** [View Tickets](#) [New Ticket](#) [Search](#)

[Last Change](#) | [Revision Log](#)

source: **Generators / MC15JobOptions / trunk / common**

[View revision:](#)  [View diff against:](#)

Name	Size	Rev	Age	Author	Last Change
<a href="#">..</a>					
<a href="#">Epos</a>		659904	6 months	ewelina	add Epos_Base_Fragment
<a href="#">EvtGen</a>		696929	3 days	mcjo	Add 422005-18, 387403-27
<a href="#">Filters</a>		693246	3 weeks	mcjo	Add 342607-15, update HTFilter.py
<a href="#">Herwigpp</a>		693522	3 weeks	hpirumov	Add 410141, Herwigpp_UEEE5_CTEQ6L1_CT104f_Common.py
<a href="#">Hijing</a>		660802	6 months	mcjo	Add 420000, update 301291-2
<a href="#">MadGraph</a>		696738	4 days	mcjo	Add 341936
<a href="#">ParticleGun</a>		696504	5 days	mcjo	Add 423003, 410009, 302066, 423099,107-12
<a href="#">Powheg</a>		676424	3 months	siragusa	Update 426104
<a href="#">ProtosLHEF</a>		667928	4 months	ewelina	add ChargedTrackFilter?.py
<a href="#">Pythia</a>		681571	3 months	mcjo	Update 303194-203
<a href="#">Pythia8</a>		679021	3 months	onofrio	add ATTBAR Tune fragment
<a href="#">Pythia8B</a>		685952	2 months	hpirumov	Add 424102, update Pythia8B_Bottomonium_Common.py
<a href="#">PythiaRhad</a>		678107	3 months	mcjo	Update PythiaRhad_SUSY_AUET2BCTEQ6L1_Rhadrons.py
<a href="#">Sherpa</a>		686207	2 months	onofrio	add Sherpa 2.2.0 fragments and JO
<a href="#">BlackList_caches.txt</a>	325 bytes	683481	2 months	onofrio	updated BlackList?
<a href="#">evgenkeywords.txt</a>	1.9 KB	695981	7 days	hpirumov	Add 422000-04, inclusive.dec, inclusive.pdt, inclusiveP8DsDPlus.pdt, ...
<a href="#">Latest_caches.txt</a>	192 bytes	684784	2 months	onofrio	update Latest cache

# Example | Finding common JobOptions



- ▶ e.g. MadGraph common files:

- ▶ <https://svnweb.cern.ch/trac/atlasoff/browser/Generators/MC15JobOptions/trunk/common/MadGraph>

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Last Change Revision Log

source: [Generators / MC15JobOptions / trunk / common / MadGraph](#)

View revision:  View diff against:

Name	Size	Rev	Age	Author	Last Change
..					
<a href="#">MadGraphPythia_Perugia2012_Common.py</a>	163 bytes	681571	3 months	mcjo	Update 303194-203
<a href="#">MadGraphPythia8EvtGenControl_Hplus_IntMass_LO.py</a>	4.5 KB	679799	3 months	siragusa	Update common/MadGraph/MadGraphPythia8EvtG
<a href="#">MadGraphControl_Ziets_LO_Pythia8_Mll10to40_ptl5.py</a>	6.0 KB	689576	6 weeks	onofrio	add JO Zll low mass MGPy8
<a href="#">MadGraphControl_Zjets_LO_Pythia8.py</a>	6.4 KB	667071	5 months	mcfayden	Fix MGPy8 Vjets control file for renamed Py8 CKKVs
<a href="#">MadGraphControl_Zbbjj_LO_incl.py</a>	3.5 KB	681962	3 months	mcjo	Add 303004-13, 341560, 342195-6
<a href="#">MadGraphControl_Wprime_tb.py</a>	13.1 KB	682812	3 months	siragusa	Update 302713-302739
<a href="#">MadGraphControl_Wjets_LO_Pythia8.py</a>	5.4 KB	667071	5 months	mcfayden	Fix MGPy8 Vjets control file for renamed Py8 CKKVs
<a href="#">MadGraphControl_ttVV_LO.py</a>	1.7 KB	677046	3 months	onofrio	steering JO for ttV,ttVV,4top
<a href="#">MadGraphControl_ttV_LO_Pythia8_A14_CKKWLkTMerge.py</a>	6.0 KB	686877	2 months	mcfayden	Adding ttll JOs
<a href="#">MadGraphControl_SimplifiedModelPreInclude.py</a>	1.2 KB	681041	3 months	mcfayden	Fix for ttZnnqq, adding decays for MG SMs
<a href="#">MadGraphControl_SimplifiedModelPostInclude.py</a>	4.0 KB	603075	4 weeks	mcjo	Add 341088-06

# Example | Finding common JobOptions



← Previous Revision

source: Generators / MC15JobOptions / trunk / common / MadGraph / MadGraphControl\_Zjets\_LO\_Pythia8.py

View revisi

Last change on this file was 667071, checked in by mcfayden, 5 months ago

Fix MGPy8 Vjets control file for renamed Py8 CKKWL fragment

File size: 6.4 KB

Line	
1	from MadGraphControl.MadGraphUtils import *
2	
3	# General settings
4	nevents=150000
5	mode=0
6	nJobs=1
7	gridpack_dir=None
8	gridpack_mode=False
9	cluster_type=None
10	cluster_queue=None
11	
12	# MG Particle cuts
13	mllcut=40
14	
15	# Merging settings
16	maxjetflavor=5
17	ickkw=0
18	nJetMax=4
19	ktdurham=30
20	dparameter=0.4
21	
22	
23	## DSTN lists (extensions can include filters, systematics samples, etc.)
24	Zee_5fl_Np0=[361500]
25	Zee_5fl_Np1=[361501]
26	Zee_5fl_Np2=[361502]
27	Zee_5fl_Np3=[361503]
28	Zee_5fl_Np4=[361504]
29	
30	Zmumu_5fl_Np0=[361505]

# Example | Finding common JobOptions



```
50
51 ##### Electrons
52 if runArgs.runNumber in Zee_5fl_Np0:
53     mgproc="generate p p > e+ e- @0"
54     name='Zee_Np0'
55     process="pp>e+e-"
56 elif runArgs.runNumber in Zee_5fl_Np1:
57     mgproc="generate p p > e+ e- j @1"
58     name='Zee_Np1'
59     process="pp>e+e-"
60 elif runArgs.runNumber in Zee_5fl_Np2:
61     mgproc="generate p p > e+ e- j j @2"
62     name='Zee_Np2'
63     process="pp>e+e-"
64 elif runArgs.runNumber in Zee_5fl_Np3:
65     mgproc="generate p p > e+ e- j j j @3"
66     name='Zee_Np3'
67     process="pp>e+e-"
68 elif runArgs.runNumber in Zee_5fl_Np4:
69     mgproc="generate p p > e+ e- j j j j @4"
70     name='Zee_Np4'
71     process="pp>e+e-"
72
73 nevents=5000
74 gridpack_mode=True
75 gridpack_dir='madevent/'
76
77 mode=1
78 cluster_type='pbs'
79 cluster_queue='medium'
80 nJobs=20
81
82 ##### Muons
83 elif runArgs.runNumber in Zmumu_5fl_Np0:
84     mgproc="generate p p > mu+ mu- @0"
85     name='Zmumu_Np0'
86     process="pp>mu+mu-"
87 elif runArgs.runNumber in Zmumu_5fl_Np1:
88     mgproc="generate p p > mu+ mu- j @1"
89     name='Zmumu_Np1'
90     process="pp>mu+mu-"
91 elif runArgs.runNumber in Zmumu_5fl_Np2:
92     mgproc="generate p p > mu+ mu- j j @2"
93     name='Zmumu_Np2'
```

```
if runArgs.runNumber in Zee_5fl_Np0:
    mgproc="generate p p > e+ e- @0"
    name='Zee_Np0'
    process="pp>e+e-"
```

## ▶ Process definition and run card parameters:

```
185  
186 fcard = open('proc_card_mg5.dat','w')  
187 fcard.write("")  
188 import model sm-no_b_mass  
189 define p = g u c d s b u~ c~ d~ s~ b~  
190 define j = g u c d s b u~ c~ d~ s~ b~  
191 """+mg5proc+"""  
192 output -f  
193 """)  
194 fcard.close()  
195  
196  
197 beamEnergy=-999  
198 if hasattr(runArgs,'ecmEnergy'):  
199     beamEnergy = runArgs.ecmEnergy / 2.  
200 else:  
201     raise RuntimeError("No center of mass energy found")  
202  
203
```

```
205  
206 #Fetch default LO run_card.dat and set parameters  
207 extras = { 'lhe_version' : '2.0',  
208             'cut_decays' : 'F',  
209             'pdlabel' : "'nn23lo1'",  
210             'pdlabel' : "'lhapdf'",  
211             '#lhaid' : 247000,  
212             'maxjetflavor' : maxjetflavor,  
213             'asrwgtflavor' : maxjetflavor,  
214             'ickkw' : 0,  
215             'ptj' : 20,  
216             'ptb' : 20,  
217             'mmll' : mllcut,  
218             'mmjj' : 0,  
219             'drjj' : 0,  
220             'drll' : 0,  
221             'drjl' : 0.4,  
222             'ptl' : 0,  
223             'etal' : 10,  
224             'etab' : 6,  
225             'etaj' : 6,  
226             'ktdurham' : ktdurham,  
227             'dparameter' : dparameter }
```

## ▶ The hard work:

```
228 build_run_card(run_card_old=get_default_runcard(),run_card_new='run_card.dat',
229                 nevts=nevents,rand_seed=runArgs.randomSeed,beamEnergy=beamEnergy,xqcut=0.,
230                 extras=extras)
231
232
233 print_cards()
234 process_dir = new_process(grid_pack=gridpack_dir)
235 generate(run_card_loc='run_card.dat',param_card_loc=None,mode=mode,njobs=nJobs,proc_dir=process_dir,
236           grid_pack=gridpack_mode,gridpack_dir=gridpack_dir,cluster_type=cluster_type,cluster_queue=cluster_queue,
237           nevents=nevents,random_seed=runArgs.randomSeed)
238 arrange_output(proc_dir=process_dir,outputDS=stringy+'._00001.events.tar.gz')
239
240
241
242 ##### Shower
243 evgenConfig.description = 'MadGraph_'+str(name)
244 evgenConfig.keywords+=['Z','electron','jets','drellYan']
245 evgenConfig.inputfilecheck = stringy
246 runArgs.inputGeneratorFile=stringy+'._00001.events.tar.gz'
247
248 include("MC15JobOptions/Pythia8_A14_NNPDF23LO_EvtGen_Common.py")
249 include("MC15JobOptions/Pythia8_MadGraph.py")
250
251
252 PYTHIA8_nJetMax=nJetMax
253 PYTHIA8_TMS=ktdurham
254 PYTHIA8_Dparameter=dparameter
255 PYTHIA8_Process=process
256 PYTHIA8_nQuarksMerge=maxjetflavor
257 include("MC15JobOptions/Pythia8_CKKWL_kTMerge.py")
258
259
```

## ▶ The hard work:

```
228
229 build_run_card(run_card_old=get_default_runcard(),run_card_new='run_card.dat',
230             nevts=nevents,rand_seed=runArgs.randomSeed,beamEnergy=beamEnergy,xqcut=0.,
231             extras=extras)
232
233 print_cards()
234 process_dir = new_process(grid_pack=gridpack_dir)
235 generate(run_card_loc='run_card.dat',param_card_loc=None,mode=mode,njobs=nJobs,proc_dir=process_dir,
236           grid_pack=gridpack_mode,gridpack_dir=gridpack_dir,cluster_type=cluster_type,cluster_queue=cluster_queue,
237           nevents=nevents,random_seed=runArgs.randomSeed)
238 arrange_output(proc_dir=process_dir,outputDS=stringy+'._00001.events.tar.gz')
239
240
241
242 ##### Shower
243 evgenConfig.description = 'MadGraph_'+str(name)
244 evgenConfig.keywords+=['Z','electron','jets','drellYan']
245 evgenConfig.inputfilecheck = stringy
246 runArgs.inputGeneratorFile=stringy+'._00001.events.tar.gz'
247
248 include("MC15JobOptions/Pythia8_A14_NNPDF23LO_EvtGen_Common.py")
249 include("MC15JobOptions/Pythia8_MadGraph.py")
250
251
252 PYTHIA8_nJetMax=nJetMax
253 PYTHIA8_TMS=ktdurham
254 PYTHIA8_Dparameter=dparameter
255 PYTHIA8_Process=process
256 PYTHIA8_nQuarksMerge=maxjetflavor
257 include("MC15JobOptions/Pythia8_CKKWL_kTMerge.py")
258
259
```

Generate diagrams

## ▶ The hard work:

```
228 build_run_card(run_card_old=get_default_runcard(),run_card_new='run_card.dat',
229                 nevts=nevents,rand_seed=runArgs.randomSeed,beamEnergy=beamEnergy,xqcut=0.,
230                 extras=extras)
231
232
233 print_cards()
234 process_dir = new_process(grid_pack=gridpack_dir)
235 generate(run_card_loc='run_card.dat',param_card_loc=None,mode=mode,njobs=nJobs,proc_dir=process_dir,
236           grid_pack=gridpack_mode,gridpack_dir=gridpack_dir,cluster_type=cluster_type,cluster_queue=cluster_queue,
237           nevents=nevents,random_seed=runArgs.randomSeed)
238 arrange_output(proc_dir=process_dir,outputDS=stringy+'._00001.events.tar.gz')
239
240
241
242 ##### Shower
243 evgenConfig.description = 'MadGraph_'+str(name)
244 evgenConfig.keywords+=['Z','electron','jets','drellYan']
245 evgenConfig.inputfilecheck = stringy
246 runArgs.inputGeneratorFile=stringy+'._00001.events.tar.gz'
247
248 include("MC15JobOptions/Pythia8_A14_NNPDF23LO_EvtGen_Common.py")
249 include("MC15JobOptions/Pythia8_MadGraph.py")
250
251
252 PYTHIA8_nJetMax=nJetMax
253 PYTHIA8_TMS=ktdurham
254 PYTHIA8_Dparameter=dparameter
255 PYTHIA8_Process=process
256 PYTHIA8_nQuarksMerge=maxjetflavor
257 include("MC15JobOptions/Pythia8_CKKWL_kTMerge.py")
258
259
```

Generate events

## ▶ The hard work:

```
228 build_run_card(run_card_old=get_default_runcard(),run_card_new='run_card.dat',
229                 nevts=nevents,rand_seed=runArgs.randomSeed,beamEnergy=beamEnergy,xqcut=0.,
230                 extras=extras)
231
232
233 print_cards()
234 process_dir = new_process(grid_pack=gridpack_dir)
235 generate(run_card_loc='run_card.dat',param_card_loc=None,mode=mode,njobs=nJobs,proc_dir=process_dir,
236           grid_pack=gridpack_mode,gridpack_dir=gridpack_dir,cluster_type=cluster_type,cluster_queue=cluster_queue,
237           nevents=nevents,random_seed=runArgs.randomSeed)
238 arrange_output(proc_dir=process_dir,outputDS=stringy+'._00001.events.tar.gz')
239
240
241
242 ##### Shower
243 evgenConfig.description = 'MadGraph_'+str(name)
244 evgenConfig.keywords+=['z','electron','jets','drellYan']
245 evgenConfig.inputfilecheck = stringy
246 runArgs.inputGeneratorFile=stringy+'._00001.events.tar.gz'
247
248 include("MC15JobOptions/Pythia8_A14_NNPDF23LO_EvtGen_Common.py")
249 include("MC15JobOptions/Pythia8_MadGraph.py")
250
251
252 PYTHIA8_nJetMax=nJetMax
253 PYTHIA8_TMS=ktdurham
254 PYTHIA8_Dparameter=dparameter
255 PYTHIA8_Process=process
256 PYTHIA8_nQuarksMerge=maxjetflavor
257 include("MC15JobOptions/Pythia8_CKKWL_kTMerge.py")
258
259
```

Showering those events

## ▶ The hard work:

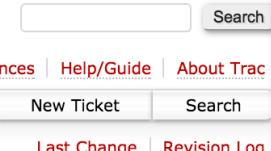
```
228
229 build_run_card(run_card_old=get_default_runcard(),run_card_new='run_card.dat',
230             nevts=nevents,rand_seed=runArgs.randomSeed,beamEnergy=beamEnergy,xqcut=0.,
231             extras=extras)
232
233 print_cards()
234 process_dir = new_process(grid_pack=gridpack_dir)
235 generate(run_card_loc='run_card.dat',param_card_loc=None,mode=mode,njobs=nJobs,proc_dir=process_dir,
236           grid_pack=gridpack_mode,gridpack_dir=gridpack_dir,cluster_type=cluster_type,cluster_queue=cluster_queue,
237           nevents=nevents,random_seed=runArgs.randomSeed)
238 arrange_output(proc_dir=process_dir,outputDS=stringy+'._00001.events.tar.gz')
239
240
241
242 ##### Shower
243 evgenConfig.description = 'MadGraph_'+str(name)
244 evgenConfig.keywords+=['z','electron','jets','drellYan']
245 evgenConfig.inputfilecheck = stringy
246 runArgs.inputGeneratorFile=stringy+'._00001.events.tar.gz'
247
248 include("MC15JobOptions/Pythia8_A14_NNPDF23LO_EvtGen_Common.py")
249 include("MC15JobOptions/Pythia8_MadGraph.py")
250
251
252 PYTHIA8_nJetMax=nJetMax
253 PYTHIA8_TMS=ktdurham
254 PYTHIA8_Dparameter=dparameter
255 PYTHIA8_Process=process
256 PYTHIA8_nQuarksMerge=maxjetflavor
257 include("MC15JobOptions/Pythia8_CKKWL_kTMerge.py")
258
259
```

Showering those events

## ▶ or Pythia8 common files:

- ▶ <https://svnweb.cern.ch/trac/atlasoff/browser/Generators/MC15JobOptions/trunk/common/Pythia8>

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source: Generators / MC15JobOptions / trunk / common / Pythia8

[View revision](#):  [View diff against](#):

Name	Size	Rev	Age	Author	Last Change
.. /					
<a href="#">Pythia8_A2_MSTW2008LO_EvtGen_Common.py</a>	661 bytes	<a href="#">645359</a>	8 months	jmonk	fixes to single pion names and nonStandard paths
<a href="#">Pythia8_A14_NNPDF23LO_EvtGen_Common.py</a>	390 bytes	<a href="#">645359</a>	8 months	jmonk	fixes to single pion names and nonStandard paths
<a href="#">Pythia8_A14_NNPDF23LO_Var1Down_EvtGen_Common.py</a>	409 bytes	<a href="#">672127</a>	4 months	onofrio	add fragment for EvtGen? Var1 A14 tuning
<a href="#">Pythia8_A14_NNPDF23LO_Var1Up_EvtGen_Common.py</a>	405 bytes	<a href="#">672127</a>	4 months	onofrio	add fragment for EvtGen? Var1 A14 tuning
<a href="#">Pythia8_A14_NNPDF23LO_Var2Down_EvtGen_Common.py</a>	409 bytes	<a href="#">668626</a>	4 months	onofrio	add Var A14 Tuning fragments
<a href="#">Pythia8_A14_NNPDF23LO_Var2Up_EvtGen_Common.py</a>	405 bytes	<a href="#">668626</a>	4 months	onofrio	add Var A14 Tuning fragments
<a href="#">Pythia8_A14_NNPDF23LO_Var3aDown_EvtGen_Common.py</a>	412 bytes	<a href="#">668626</a>	4 months	onofrio	add Var A14 Tuning fragments
<a href="#">Pythia8_A14_NNPDF23LO_Var3aUp_EvtGen_Common.py</a>	407 bytes	<a href="#">668626</a>	4 months	onofrio	add Var A14 Tuning fragments
<a href="#">Pythia8_A14_NNPDF23LO_Var3bDown_EvtGen_Common.py</a>	411 bytes	<a href="#">668626</a>	4 months	onofrio	add Var A14 Tuning fragments
<a href="#">Pythia8_A14_NNPDF23LO_Var3bUp_EvtGen_Common.py</a>	407 bytes	<a href="#">668626</a>	4 months	onofrio	add Var A14 Tuning fragments
<a href="#">Pythia8_A14_NNPDF23LO_Var3cDown_EvtGen_Common.py</a>	411 bytes	<a href="#">668626</a>	4 months	onofrio	add Var A14 Tuning fragments
<a href="#">Pythia8_A14_NNPDF23LO_Var3cUp_EvtGen_Common.py</a>	407 bytes	<a href="#">668626</a>	4 months	onofrio	add Var A14 Tuning fragments
<a href="#">Pythia8_aMcAtNlo.py</a>	129 bytes	<a href="#">660665</a>	6 months	ewelina	add Pythia8_aMcAtNlo.py
<a href="#">Pythia8_ATTBAR_NNPDF23LO_EvtGen_Common.py</a>	396 bytes	<a href="#">679021</a>	3 months	onofrio	add ATTBAR Tune fragment
<a href="#">Pythia8_AZ_CTEQ6L1_EvtGen_Common.py</a>	387 bytes	<a href="#">660343</a>	6 months	onofrio	add AZ Pythia8 fragment
<a href="#">Pythia8_AZNLO_CTEQ6L1_EvtGen_Common.py</a>	390 bytes	<a href="#">649559</a>	7 months	onofrio	add Powheg Pythia8 fragments
<a href="#">Pythia8_Base_Fragment.py</a>	484 bytes	<a href="#">636214</a>	10 months	jmonk	Divide common JO dir into subdirs
<a href="#">Pythia8_CKKWL_kTMerge.py</a>	1.9 KB	<a href="#">667006</a>	5 months	mcfayden	Rename Py8 CKKWL fragment
<a href="#">Pythia8_EvtGen.py</a>	445 bytes	<a href="#">653840</a>	7 months	jmonk	Remove _joproxy15/etc from pdt path for EvtGen?

## ▶ ... or Filters

- ▶ <https://svnweb.cern.ch/trac/atlasoff/browser/Generators/MC15JobOptions/trunk/common/Filters>

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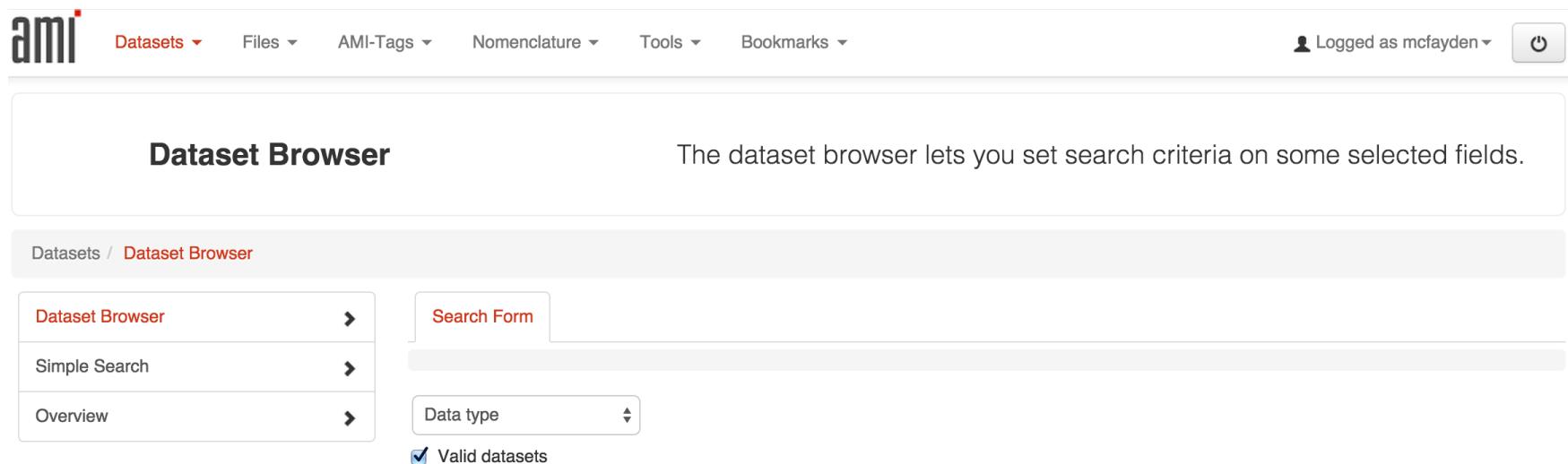
 Search  
  
logged in as mcfayden | [Logout](#) | [Preferences](#) | [Help/Guide](#) | [About Trac](#)  
  
[Wiki](#) | [Timeline](#) | [Roadmap](#) | **Browse Source** | [View Tickets](#) | [New Ticket](#) | [Search](#)  
  
[Last Change](#) | [Revision Log](#)

source: Generators / MC15JobOptions / trunk / common / Filters

View revision:  View diff against:

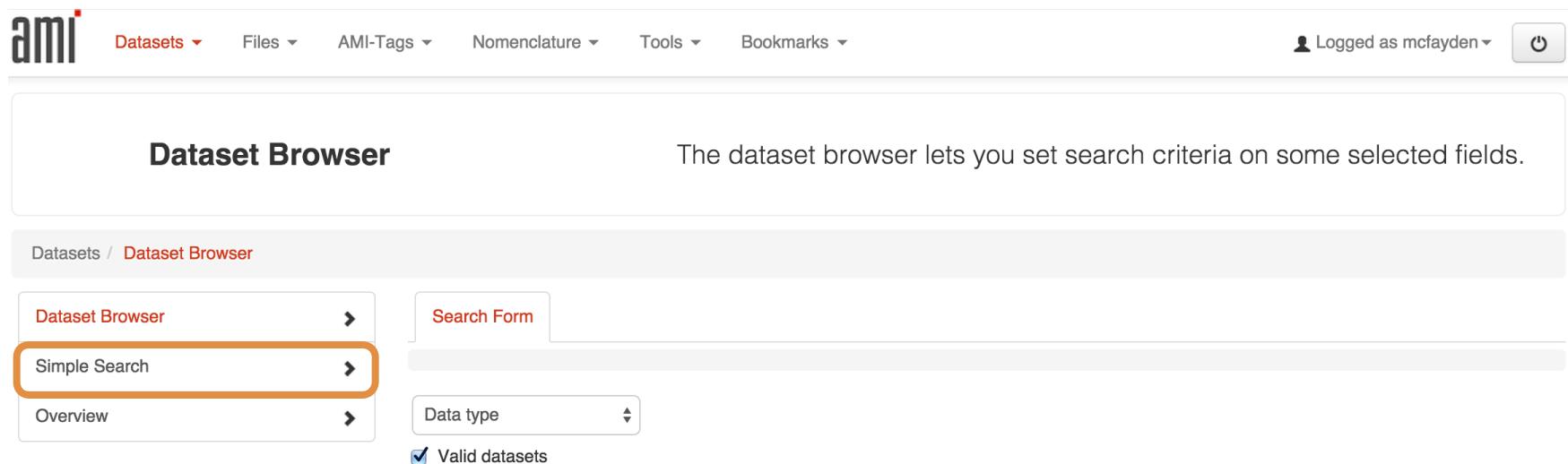
Name	Size	Rev	Age	Author	Last Change
<a href="#">..</a>					
<a href="#">AntiKt4TruthJets.py</a>	669 bytes	<a href="#">667723</a>	4 months	jhenders	Fixed useTracks flag in truth jet fragments
<a href="#">AntiKt4TruthJets_pileup.py</a>	1.3 KB	<a href="#">667723</a>	4 months	jhenders	Fixed useTracks flag in truth jet fragments
<a href="#">AntiKt4TruthWZJets.py</a>	673 bytes	<a href="#">672066</a>	4 months	ewelina	add AntiKt4TruthWZJets.py
<a href="#">AntiKt6TruthJets.py</a>	671 bytes	<a href="#">667723</a>	4 months	jhenders	Fixed useTracks flag in truth jet fragments
<a href="#">AntiKt6TruthJets_pileup.py</a>	1.3 KB	<a href="#">667723</a>	4 months	jhenders	Fixed useTracks flag in truth jet fragments
<a href="#">BHadronFilter.py</a>	712 bytes	<a href="#">649590</a>	7 months	onofrio	add B/C filter for sherpa
<a href="#">BoostedHadTopAndTopPair.py</a>	728 bytes	<a href="#">660808</a>	6 months	mcjo	Add 407013, BoostedHadTopAndTopPair?.py
<a href="#">BSignalFilter.py</a>	439 bytes	<a href="#">665491</a>	5 months	mcjo	Add 361250-3, 300998-9, BSignalFilter.py
<a href="#">BSubtractFilter.py</a>	643 bytes	<a href="#">647770</a>	7 months	jhenders	Adding JO fragments for validated filters
<a href="#">CHadronFilter.py</a>	709 bytes	<a href="#">649591</a>	7 months	onofrio	add B/C filter for sherpa
<a href="#">CHadronPt4Eta3_Filter.py</a>	799 bytes	<a href="#">653562</a>	7 months	onofrio	add CHadron Filters for V+jets
<a href="#">CHadronPt4Eta4_JetFilter.py</a>	1.2 KB	<a href="#">653561</a>	7 months	onofrio	add CHadron Filters for V+jets
<a href="#">ChargedTrackFilter.py</a>	294 bytes	<a href="#">667928</a>	4 months	ewelina	add ChargedTrackFilter?.py
<a href="#">DecayModeFilter.py</a>	191 bytes	<a href="#">670248</a>	4 months	siragusa	Add 387450-387489
<a href="#">DecaysFinalStateFilter.py</a>	436 bytes	<a href="#">665568</a>	5 months	siragusa	See <a href="#">ChangeLog</a>
<a href="#">DiBJetFilter.py</a>	905 bytes	<a href="#">647770</a>	7 months	jhenders	Adding JO fragments for validated filters
<a href="#">DirectPhotonFilter.py</a>	574 bytes	<a href="#">665568</a>	5 months	siragusa	See <a href="#">ChangeLog</a>
<a href="#">DstarMinusFilter.py</a>	764 bytes	<a href="#">663926</a>	5 months	mcjo	Add 427006-25, update 423200-2, 426014-5

- ▶ Same file again:
  - ▶ mc15\_13TeV.361500.MadGraphPythia8EvtGen\_A14NNPDF23LO\_Zee\_Np0.evgen.e3898
  - ▶ But maybe you only have the project and DSID
  - ▶ **Go to AMI dataset search ([here](#)):**



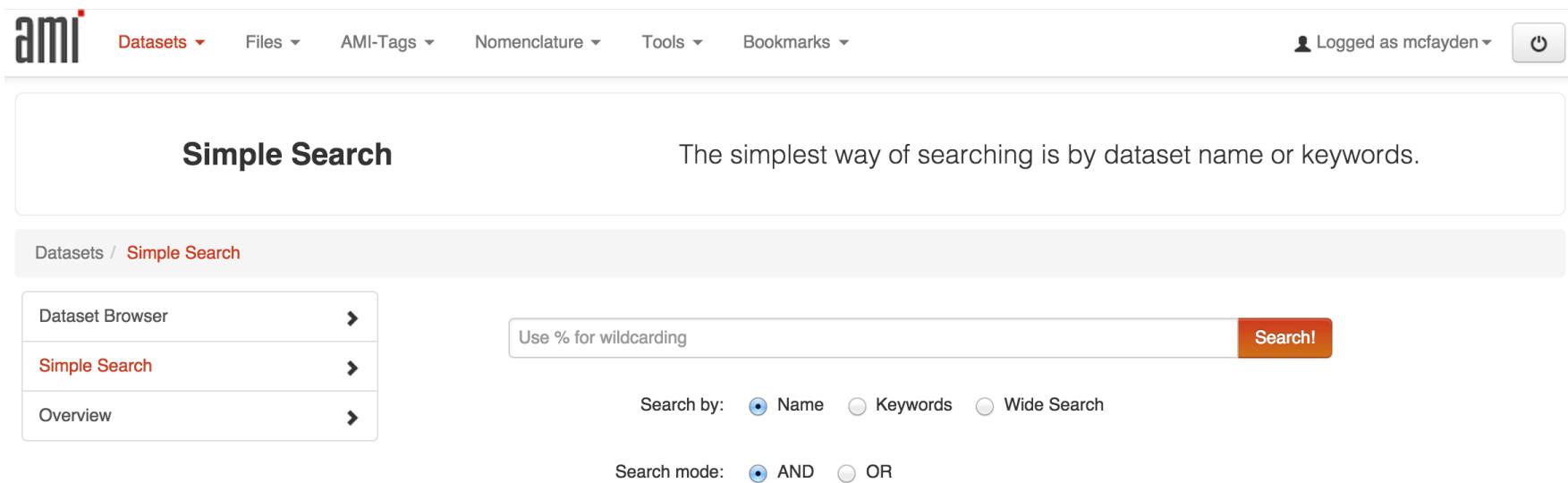
The screenshot shows the AMI Dataset Browser interface. At the top, there is a navigation bar with links for Datasets, Files, AMI-Tags, Nomenclature, Tools, Bookmarks, and a user account section. Below the navigation bar, a header reads "Dataset Browser" and includes a descriptive text: "The dataset browser lets you set search criteria on some selected fields." A breadcrumb trail indicates the current location: Datasets / Dataset Browser. On the left, a sidebar menu lists "Dataset Browser", "Simple Search", and "Overview". On the right, there is a "Search Form" input field, a "Data type" dropdown menu, and a checked checkbox labeled "Valid datasets".

- ▶ Same file again:
  - ▶ mc15\_13TeV.361500.MadGraphPythia8EvtGen\_A14NNPDF23LO\_Zee\_Np0.evgen.e3898
  - ▶ But maybe you only have the project and DSID
  - ▶ **Go to AMI dataset search ([here](#)):**



The screenshot shows the AMI Dataset Browser interface. At the top, there is a navigation bar with links for Datasets, Files, AMI-Tags, Nomenclature, Tools, Bookmarks, and a user account section. Below the navigation bar, the title "Dataset Browser" is displayed, followed by a descriptive text: "The dataset browser lets you set search criteria on some selected fields." In the main content area, there is a sidebar with three options: "Dataset Browser", "Simple Search" (which is highlighted with an orange border), and "Overview". To the right of the sidebar is a "Search Form" with a "Data type" dropdown menu and a checked checkbox for "Valid datasets". The URL in the browser's address bar is "Datasets / Dataset Browser".

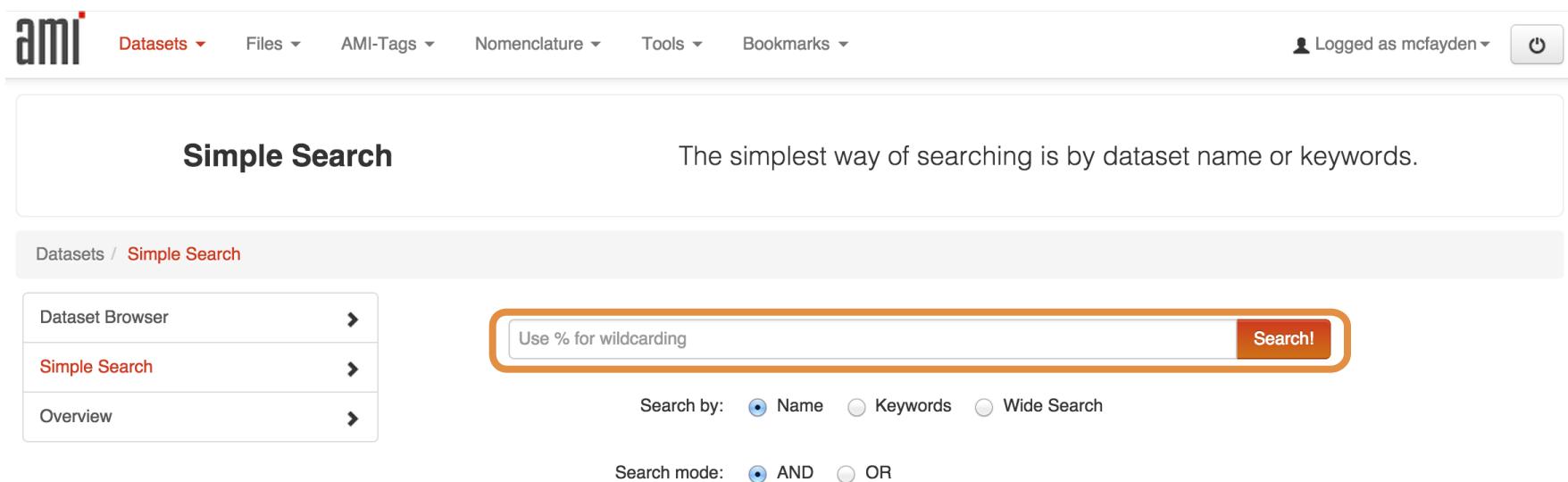
- ▶ Same file again:
  - ▶ mc15\_13TeV.361500.MadGraphPythia8EvtGen\_A14NNPDF23LO\_Zee\_Np0.evgen.e3898
  - ▶ But maybe you only have the project and DSID
  - ▶ **Go to AMI dataset search ([here](#)):**



The screenshot shows the AMI dataset search interface. At the top, there is a navigation bar with links for Datasets, Files, AMI-Tags, Nomenclature, Tools, Bookmarks, and a user account section. Below the navigation bar, a large header reads "Simple Search" and includes a sub-header: "The simplest way of searching is by dataset name or keywords." On the left, a sidebar menu lists "Dataset Browser", "Simple Search" (which is currently selected), and "Overview". The main search area features a text input field with placeholder text "Use % for wildcarding" and a red "Search!" button. Below the input field, there are two sets of search parameters: "Search by:" with radio buttons for "Name" (selected), "Keywords", and "Wide Search"; and "Search mode:" with radio buttons for "AND" (selected) and "OR".

## ▶ Same file again:

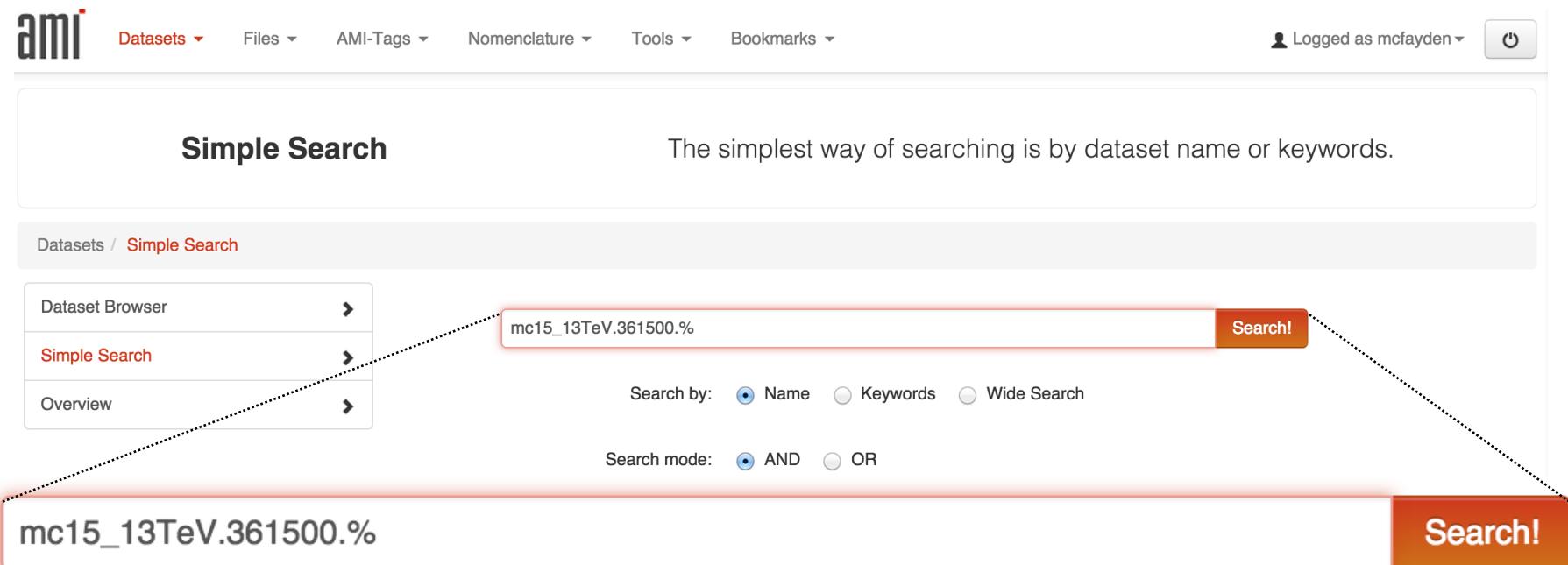
- ▶ mc15\_13TeV.361500.MadGraphPythia8EvtGen\_A14NNPDF23LO\_Zee\_Np0.evgen.e3898
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The screenshot shows the AMI dataset search interface. At the top, there is a navigation bar with links for Datasets, Files, AMI-Tags, Nomenclature, Tools, Bookmarks, and a user account section. Below the navigation bar, a title "Simple Search" is displayed, followed by a subtitle: "The simplest way of searching is by dataset name or keywords." On the left, there is a sidebar with links for Dataset Browser, Simple Search (which is currently selected and highlighted in red), and Overview. The main search area features a search input field with placeholder text "Use % for wildcarding" and a "Search!" button. Below the search input, there are options to "Search by" Name (selected), Keywords, or Wide Search, and to "Search mode" AND (selected) or OR.

## ▶ Same file again:

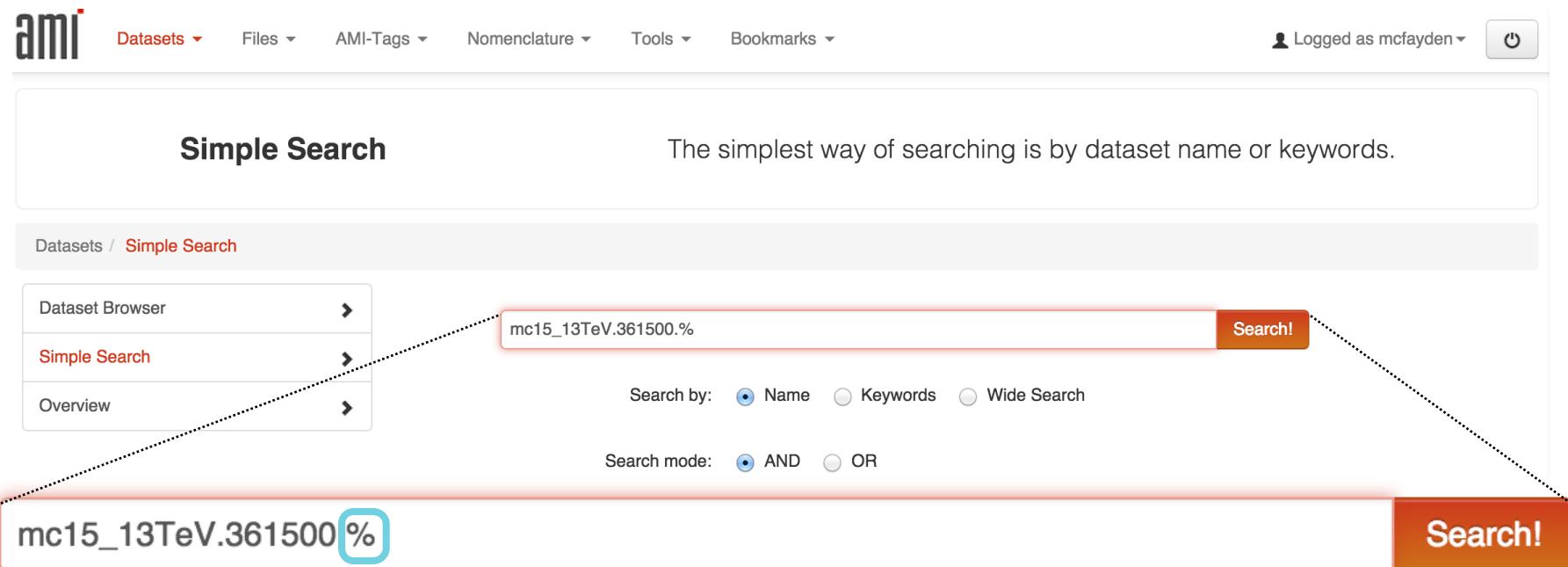
- ▶ mc15\_13TeV.361500.MadGraphPythia8EvtGen\_A14NNPDF23LO\_Zee\_Np0.evgen.e3898
- ▶ But maybe you only have the project and DSID
- ▶ **Go to AMI dataset search ([here](#)):**



The screenshot shows the AMI dataset search interface. At the top, there is a navigation bar with links for Datasets, Files, AMI-Tags, Nomenclature, Tools, Bookmarks, and a user account section. Below the navigation bar, a header reads "Simple Search" and describes it as "The simplest way of searching is by dataset name or keywords". A breadcrumb trail indicates the current location is "Datasets / Simple Search". On the left, a sidebar menu lists "Dataset Browser", "Simple Search" (which is currently selected), and "Overview". Two search bars are present. The top search bar contains the query "mc15\_13TeV.361500.%". Below it, search parameters are shown: "Search by:" with "Name" selected, "Keywords", and "Wide Search" options; and "Search mode:" with "AND" selected, "OR" option. The bottom search bar also contains the query "mc15\_13TeV.361500.%". Both search bars have a red "Search!" button at the end.

## ▶ Same file again:

- ▶ mc15\_13TeV.361500.MadGraphPythia8EvtGen\_A14NNPDF23LO\_Zee\_Np0.evgen.e3898
- ▶ But maybe you only have the project and DSID
- ▶ **Go to AMI dataset search ([here](#)):**



The screenshot shows the AMI dataset search interface. At the top, there is a navigation bar with links for Datasets, Files, AMI-Tags, Nomenclature, Tools, Bookmarks, and a user account section. Below the navigation bar, a title "Simple Search" is displayed, followed by a subtitle: "The simplest way of searching is by dataset name or keywords." On the left, a sidebar menu includes "Dataset Browser", "Simple Search" (which is currently selected and highlighted in red), and "Overview". The main search area contains a search input field with the placeholder "mc15\_13TeV.361500.%". Below the input field are two "Search!" buttons: one red button to the right and a larger orange button at the bottom right of the search bar. Underneath the search bar, there are two sets of search parameters: "Search by:" with radio buttons for Name (selected), Keywords, and Wide Search; and "Search mode:" with radio buttons for AND (selected) and OR.

mc15\_13TeV.361500%

Search!

Wildcarding with '%'

# Example | AMI dataset search

## ▶ Results page:

ami Datasets ▾ Files ▾ AMI-Tags ▾ Nomenclature ▾ Tools ▾ Bookmarks ▾ Logged as mcfayden ▾ Logout

Datasets / Simple Search

mc15\_001-production +

**dataset** 56 records

◀ 1 ▶ order by dataset.created DESC modified created ↻ Bookmark More... ▾

Query : amiStatus='VALID' AND (( logicalDatasetName like 'mc15\_13TeV.361500.%'))

more fields +	logicalDatasetName ↴ ↵ 🔎	nFiles 🔎	totalEvents 🔎
details ✖	mc15_13TeV.361500.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0.merge.DAOD_HIGG6D1.e3898_s2608_s2183_r6630_r6264_p2419 RucioInfo - Provenance - GANGA export - Series	60	296
details ✖	mc15_13TeV.361500.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0.merge.DAOD_HIGG6D2.e3898_s2608_s2183_r6630_r6264_p2419 RucioInfo - Provenance - GANGA export - Series	60	3547356
details ✖	mc15_13TeV.361500.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0.merge.DAOD_TOPQ1.e3898_s2608_s2183_r6630_r6264_p2413 RucioInfo - Provenance - GANGA export - Series	108	6843792
details ✖	mc15_13TeV.361500.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0.merge.TAG.e3898_s2608_s2183_r6869_r6282_t602 RucioInfo - Provenance - GANGA export - Series	344	6873800

# Example | AMI dataset search

- ▶ Details for generators can be found in **evgen** dataset

ami Datasets ▾ Files ▾ AMI-Tags ▾ Nomenclature ▾ Tools ▾ Bookmarks ▾ Logged as mcfayden ▾

Datasets / Simple Search

mc15\_001-production +

**dataset** 56 records

◀ 1 ▶ 15 order by

Bookmark More... ▾

Query : amiStatus='VALID' AND (( logicalDatasetName like 'mc15\_13TeV.361500.%' ))

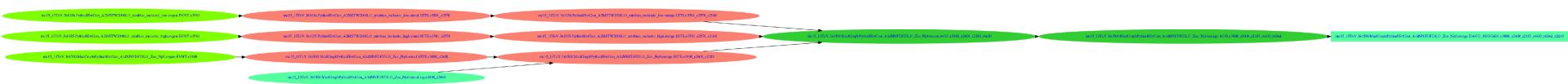
more fields +

	logicalDatasetName	nFiles	totalEvents
<a href="#">details</a>	mc15_13TeV.361500.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0.merge.DAOD_HIGG6D1.e3898_s2608_s2183_r6630_r6264_p2419 RucioInfo · Provenance · GANGA export · Series	60	296
<a href="#">details</a>	mc15_13TeV.361500.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0.merge.DAOD_HIGG6D2.e3898_s2608_s2183_r6630_r6264_p2419 RucioInfo · Provenance · GANGA export · Series	60	3547356
<a href="#">details</a>	mc15_13TeV.361500.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0.merge.DAOD_TOPQ1.e3898_s2608_s2183_r6630_r6264_p2413 RucioInfo · Provenance · GANGA export · Series	108	6843792
<a href="#">details</a>	mc15_13TeV.361500.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0.merge.TAG.e3898_s2608_s2183_r6869_r6282_t602 RucioInfo · Provenance · GANGA export · Series	344	6873800

Navigation to the **evgen** dataset can be done via **Provenance**

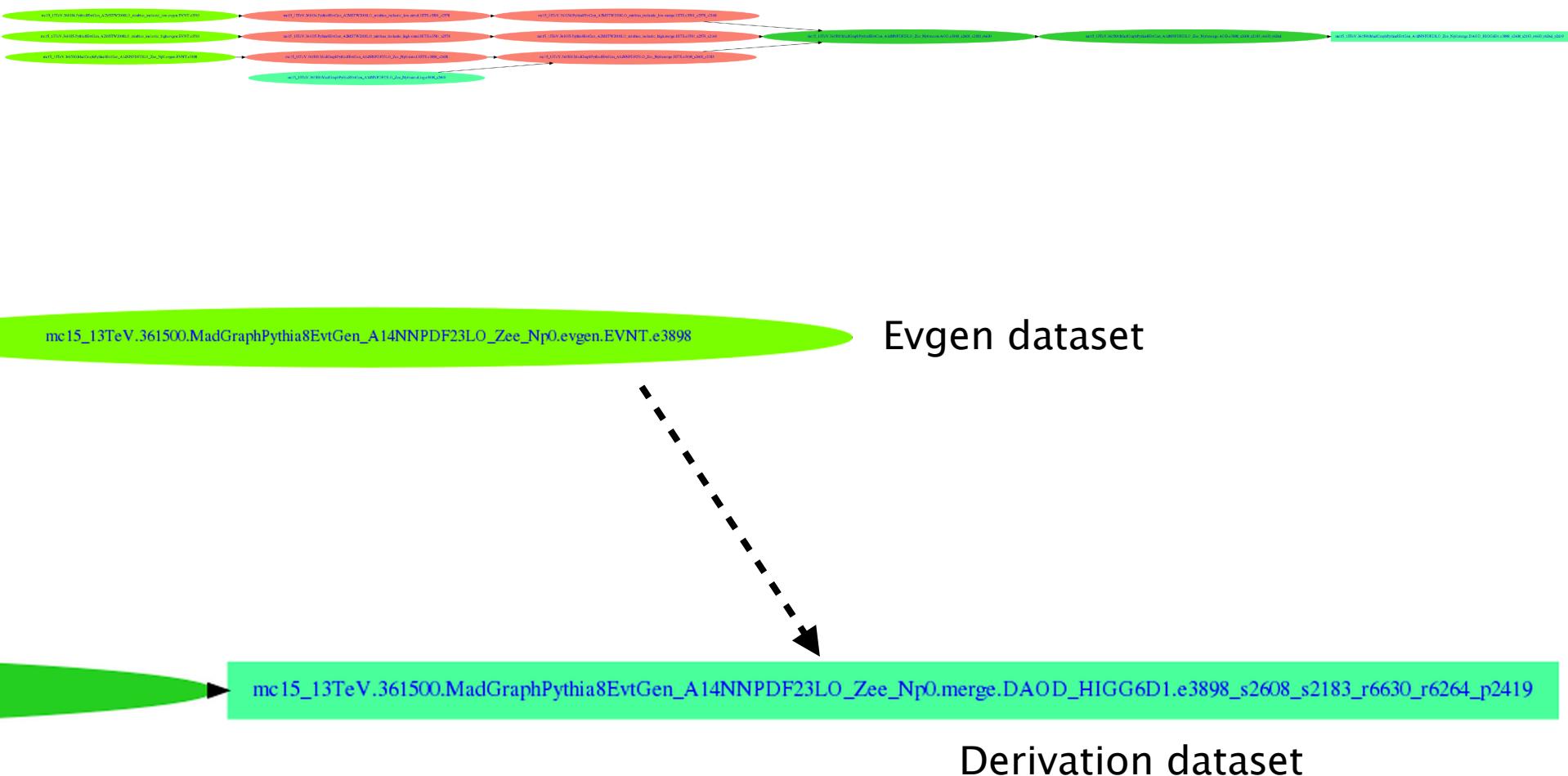
# Example | AMI dataset search

## ▶ Provenance



# Example | AMI dataset search

## ▶ Provenance

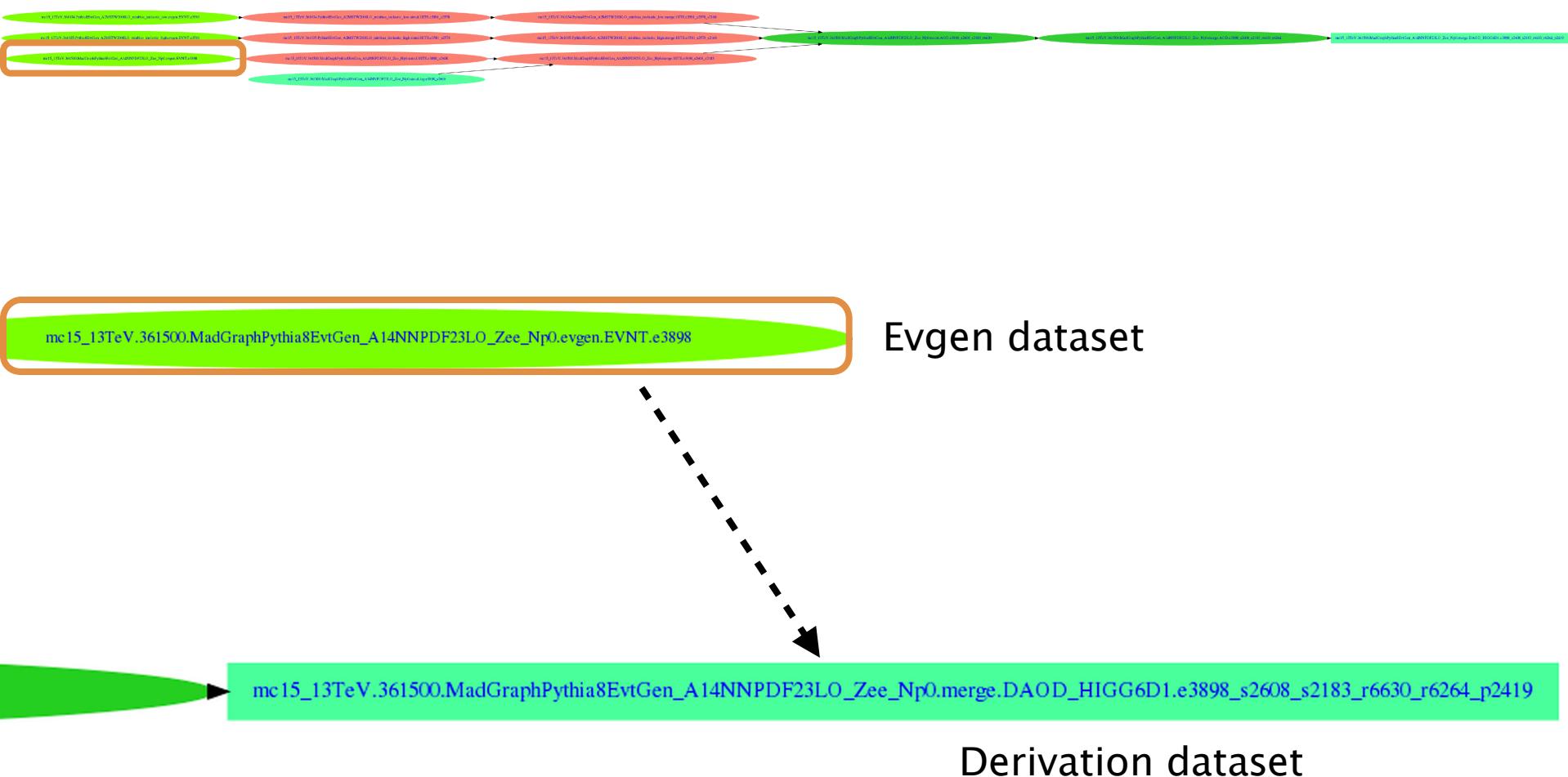


Evgen dataset

Derivation dataset

# Example | AMI dataset search

## ▶ Provenance



# Example | AMI dataset search

## ▶ Evgen dataset details - important metadata:

dataset	Add ▾	Bookmark	More... ▾
Query : All selected			
Element's information			Children elements
logicalDatasetName	mc15_13TeV.361500.MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0.evgen.EVNT.e3898 RucioInfo - Provenance - GANGA export - Series		
nFiles	1378		
totalEvents	6890000		dataset_extra dataset_keywords dataset_comment files jobOptions prodsys_task physicsParameterVals_all physicsParameterVals campaign
totalSize	212.986 GB		4 Records 4 Records No records found 1378 Records No records found 1 Records 3 Records 2 Records No records found
dataType	EVNT		
prodsysStatus	ALL EVENTS AVAILABLE		
ECMEnergy			
physicsComment	MadGraph_Zee_Np0		
PDF			
physicistResponsible	MC group		
version	e3898 Datasets - Config_Tag		field value createdBy modifiedBy lastModified created
AtlasRelease			crossSection_mean 1.4016E+00 root root 2015-05-24 10:32:26 2015-05-19 07:13:14
crossSection	1.402 nb		

# Example | AMI dataset search

datasetNumber	361500	
jobConfig		
principalPhysicsGroup	gen-user	
physicsShort	MadGraphPythia8EvtGen_A14NNPDF23LO_Zee_Np0	
requestedBy	mcfayden	
creationComment		
generatorName	MadGraph+Pythia8+EvtGen	
geometryVersion		
triggerConfig	TWIKI	
conditionsTag		
lastModified	2015-09-21 11:54:17	
created	2015-05-19 07:13:14	
generatorTune	A14 NNPDF23LO	
amiStatus	VALID	
physicsCategory		
physicsProcess		
physicsSubCategory		

field	GenFiltEff_mean
value	1.0000E+00
createdBy	root
modifiedBy	root
lastModified	2015-05-24 10:32:27
created	2015-05-19 07:13:14
datasetFK	14991
identifier	29461

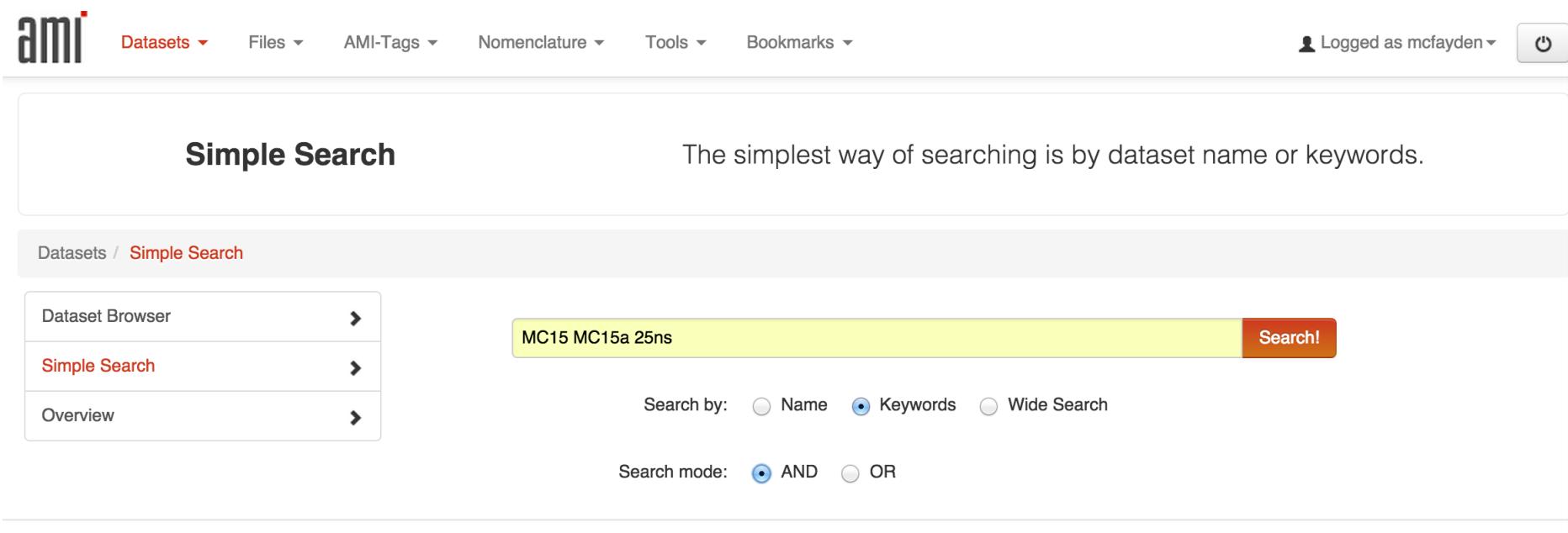
field	keywords
value	jets, drelyan, electron, z
createdBy	root
modifiedBy	root
lastModified	2015-05-24 10:31:28
created	2015-05-24 10:31:28
datasetFK	14991
identifier	33469

field	beam_energy
value	[6500000.0]
createdBy	root

# Example | AMI keywords

- ▶ Keywords can also be used for sample metadata
  - ▶ Campaign and bunchspacing search



The screenshot shows the AMI web interface. At the top, there is a navigation bar with links for Datasets, Files, AMI-Tags, Nomenclature, Tools, Bookmarks, and a user account section. Below the navigation bar, a title "Simple Search" is displayed, followed by a descriptive text: "The simplest way of searching is by dataset name or keywords." A breadcrumb trail "Datasets / Simple Search" is visible. On the left, a sidebar menu includes "Dataset Browser", "Simple Search" (which is currently selected), and "Overview". The main search area contains a yellow input field with the text "MC15 MC15a 25ns" and a red "Search!" button. Below the input field, there are search parameters: "Search by:" with radio buttons for Name, Keywords (which is selected), and Wide Search; and "Search mode:" with radio buttons for AND (which is selected) and OR.

- ▶ NB: Not yet fully implemented

# Example | AMI keywords

- ▶ Details for generators can be found in **evgen** dataset

ami Datasets ▾ Files ▾ AMI-Tags ▾ Nomenclature ▾ Tools ▾ Bookmarks ▾ Logged as mcfayden ▾ Logout

Datasets / Simple Search

mc15\_001-production +

**dataset**  
2 records

order by dataset.created DESC modified created

Bookmark More... ▾

Query : amiStatus='VALID' and ( ( dataset\_keywords\$0.keyword like '%MC15%' ) AND ( dataset\_keywords\$1.keyword like '%MC15a%' ) AND ( dataset\_keywords\$2.keyword like '%MC15d%' ) )

more fields +	logicalDatasetName ↕ mc15_valid.410000.PowhegPythiaEvtGen_P2012_ttbar_hdamp172p5_nonallhad.merge.NTUP_PHYSVAL.e3698_s2608_s2183_r6630_p1884 RucioInfo - Provenance - GANGA export - Series	nFiles ↕ 10	totalEvents ↕ 0
details ✎	mc15_valid.410000.PowhegPythiaEvtGen_P2012_ttbar_hdamp172p5_nonallhad.recon.AOD.e3698_s2608_s2183_r6630 RucioInfo - Provenance - GANGA export - Series	52	51000

- ▶ Take this sample:
  - ▶ mc15\_13TeV.  
427033.Pythia8EvtGen\_A14NNPDF23LO\_jetjet\_JZRW3\_mufilter  
.merge.e3968\_s2608\_s2183\_r6630\_r6264
- ▶ What is the process?
- ▶ Is it Full or Fast simulation?
- ▶ What bunch-spacing is it?
- ▶ What evgen release was used?
- ▶ Which Pythia8 version was used?
- ▶ Find the jobOptions
- ▶ What  $p_T$  and eta cuts are applied in the muon filter?

- ▶ Take this sample:
  - ▶ mc15\_13TeV.  
427033.Pythia8EvtGen\_A14NNPDF23LO\_jetjet\_JZRW3\_mufilter  
.merge.e3968\_s2608\_s2183\_r6630\_r6264
  
- ▶ What is the process? *Dijets! (with JZW filter)*
- ▶ Is it Full or Fast simulation? *Full sim!*
- ▶ What bunch-spacing is it? *50ns!*
- ▶ What evgen release was used? *19.2.4.1!*
- ▶ Which Pythia8 version was used? *Pythia8.186!*
- ▶ Find the jobOptions *link!*
- ▶ What  $p_T$  and eta cuts are applied in the muon filter?  
 *$p_T > 3 \text{ GeV}, |\eta| < 2.8!$*