

## LArSoft - Task #11872

### Establish a standard way to represent particle identification results

03/03/2016 09:45 AM - Gianluca Petrillo

<b>Status:</b>	Accepted	<b>Start date:</b>	03/03/2016
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	0%
<b>Category:</b>	Reconstruction	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	2018-3-quarter	<b>Spent time:</b>	0.00 hour
<b>Description</b>			
Robert Sulej prompts us to discuss about			
<p>... a uniform way of saving PID results. [...] dE/dx PID result is a vector of probabilities for each tested "pdg" hypothesis (and optionally probability of "none of known pdg"), we do the same for <math>e/\mu</math></p>			
<p>Error executing the <b>latex</b> macro (Missing template wiki_external_filter/macro_image with {:locale=&gt;[:en], :formats=&gt;[:pdf], :variants=&gt;[], :handlers=&gt;[:erb, :builder, :raw, :ruby, :haml, :rsb]}). Searched in: *</p> <pre>"/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/wiki_external_filter/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/simple_ci/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_redcarpet_viewer/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_jenkins/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_group_assignee/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_code_review/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_better_gantt_chart/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/embedded/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/app/views" ) and stopping p/_K_/</pre>			
<p>Error executing the <b>latex</b> macro (Missing template wiki_external_filter/macro_image with {:locale=&gt;[:en], :formats=&gt;[:pdf], :variants=&gt;[], :handlers=&gt;[:erb, :builder, :raw, :ruby, :haml, :rsb]}). Searched in: *</p> <pre>"/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/wiki_external_filter/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/simple_ci/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_redcarpet_viewer/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_jenkins/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_group_assignee/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_code_review/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_better_gantt_chart/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/embedded/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/app/views" ) /</pre>			
<p>Error executing the <b>latex</b> macro (Missing template wiki_external_filter/macro_image with {:locale=&gt;[:en], :formats=&gt;[:pdf], :variants=&gt;[], :handlers=&gt;[:erb, :builder, :raw, :ruby, :haml, :rsb]}). Searched in: *</p> <pre>"/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/wiki_external_filter/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/simple_ci/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_redcarpet_viewer/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_jenkins/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_group_assignee/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_code_review/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/redmine_better_gantt_chart/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/plugins/embedded/app/views" * "/fnal/ups/prd/redmine/v3_4_11/NULL/app/views" ) (and for test "stopping or not"). Now the algorithm outputs std::map&lt;pdg, probability&gt; - maybe it is reasonable format. We did not add yet any data product to save the result. I have a feeling that PID algorithm outputs in larana can be a bit more standardized, if their authors agree of course, instead of hardcoded names like kaon_prob, kaon_chi2, kaon_mva (just for example, the actual names in AnalysisBase are different).<p>The agreement on the PID output convention can be very useful since people are starting work on modules for higher level analysis.</p></pre>			
Jim Kowalkowski also pointed out work on a tuple-like data product he's working on supporting, that might be useful in this context.			

#### History

##### #1 - 10/19/2016 07:23 PM - Katherine Lato

From Jim K: the description of needs during the meeting may have been for a data product that had something that looked like an n-tuple i.e. a bunch of named column of specific types. The generic n-tuple product supports stuff like that.

**#2 - 12/14/2016 11:31 AM - Katherine Lato**

- *Status changed from New to Accepted*
- *Target version set to 2017-2-quarter*

This is tied to the track redesign effort.

**#3 - 02/21/2017 01:56 PM - Katherine Lato**

- *Target version changed from 2017-2-quarter to 2017-4-quarter*

**#4 - 11/16/2017 01:49 PM - Katherine Lato**

- *Target version changed from 2017-4-quarter to 2018-3-quarter*