ctools - Bug #3156

show_pull_histogram.py broken with matplotlib > 3.1.0

02/05/2020 12:14 PM - Cardenzana Josh

Status:	Closed		**Start date:**	02/05/2020
Priority:	Normal		**Due date:**	
Assigned To:	Cardenzana Josh		**% Done:**	100%
Category:			**Estimated time:**	0.00 hour
Target version:	1.7.0			

Description

This issue only affects source builds. I noticed an issue with show_pull_histogram.py failing the tests. The issue appears to be that the script uses the `matplotlib.mlab.normpdf` function which was removed in matplotlib v3.1.0 (see here). Running the script with matplotlib v3.1.3 confirms this method does not exist and throws:

AttributeError: module 'matplotlib.mlab' has no attribute 'normpdf'

I believe issue #3136 is related.

Related issues:

Related to ctools - Bug # 3136: make check fails with test_examples.py	**Closed**	**01/13/2020**

History

#1 - 02/05/2020 12:19 PM - Cardenzana Josh

- Related to Bug #3136: make check fails with test_examples.py added
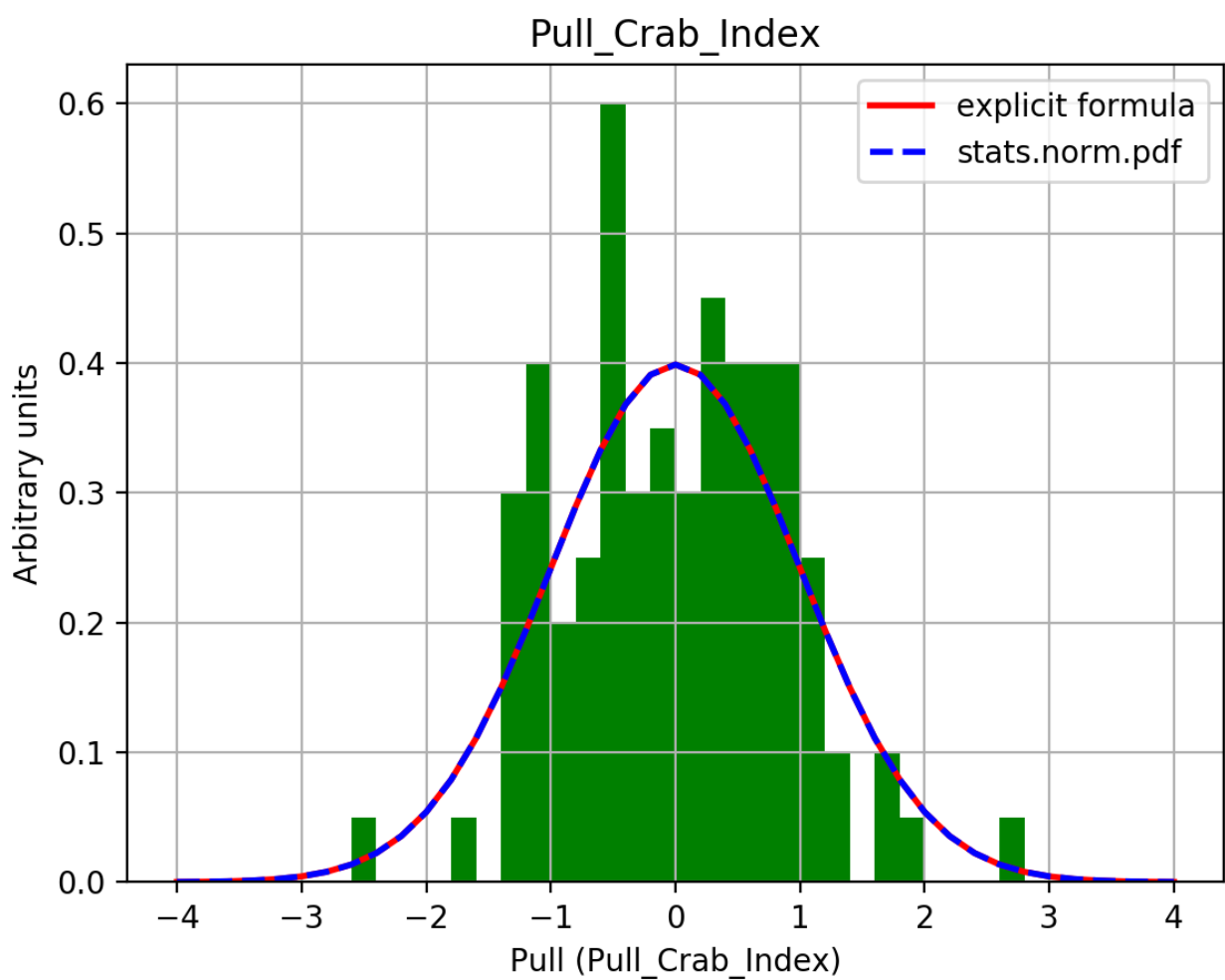
#2 - 02/05/2020 12:29 PM - Cardenzana Josh

- File cspull_test.png added

The documentation suggests using scipy.stats.norm.pdf instead, but that would introduce another dependency.

Instead I propose the simple replacement by the following (which just does the calculation explicitly):

y = np.exp(-0.5*bins*bins) / np.sqrt(2.0*np.pi)

NumPy is already a dependency in the script, but it removes the need for matplotlib.mlab. The results are exactly the same using the suggested workaround and the explicit formula:

Pull_Crab_Index

#3 - 02/05/2020 04:49 PM - Cardenzana Josh

- % Done changed from 0 to 100

I've implemented the above changes here:

Pull information:

- Username: jcardenzana
- repository: ctools
- branch: 3156_remove_normpdf

#4 - 02/17/2020 02:07 PM - Knödlseder Jürgen

- Status changed from New to Pull request

#5 - 02/17/2020 04:55 PM - Knödlseder Jürgen

- Status changed from Pull request to Closed

Merged into devel.

Files

cspull_test.png	69 KB	02/05/2020	Cardenzana Josh