LHCb and HEPData

Ulrik Egede[1], Alexandru T. Grecu[2]

[1] Imperial College, London, United Kingdom
[2] Horia Hulubei National Institute for Physics and Nuclear Engineering (IFIN-HH), Bucharest, Romania

Outline

- LHCb Resources for HEPData
- Use of HEPData.net Portal Features
- Conclusions and Future Prospects

LHCb Resources for HEPData (now vs. 2015)

- Small fraction of LHCb measurements are compatible with HEPData purpose – not encoding branching fractions, searches, observations, SM parameters; difficult to encode (CP-) asymmetries, Dalitz plots, etc. as no previous records exist (to use as reference)

- One *dedicated* LHCb coordinator; contributors are mainly LHCb authors/developers who often need extended assistance – low rate of new records (about 10/year)
- HEPData mainly used as a tool to put measurements at theorists disposal – still main drive in releasing new data sets (kindly promoted by LHCb Physics management).
- LHCb software (shyly) started to support exporting data sets to HEPData compatible formats (unfortunately mostly `oldhepdata` format for now)
- LHCb has approved and implemented a specific internal procedure for releasing data sets in HEPData as soon as arXiv paper is uploaded (manual update of metadata!)

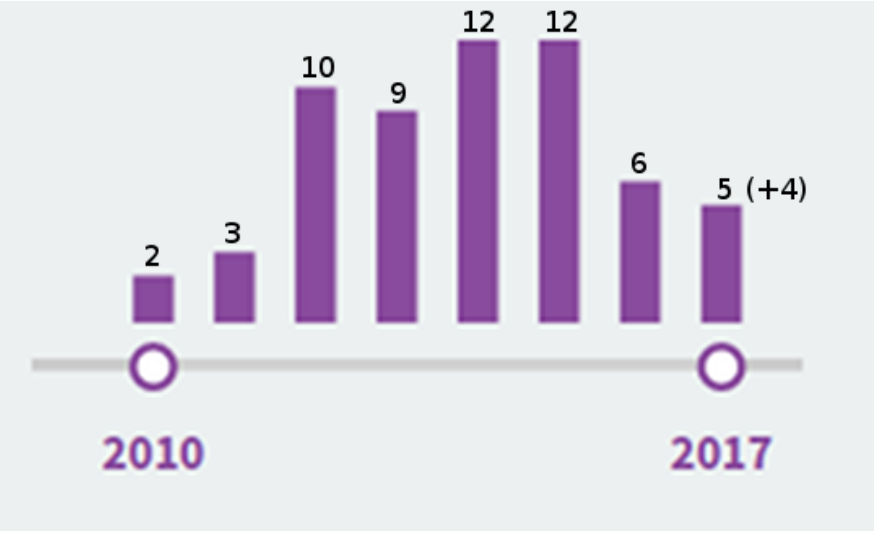
Use of HEPData.net Portal Features @ LHCb

- Much better services provided through new `hepdata.net` portal; still old portal can prove valuable in dealing with old format encodings or getting key words and reactions similar to older records
- Intent usage of Dashboard, Sandbox and e-mailing features during encoding and reviewing of already released records (still collaborators are not aware that they need to log in to have full access to portal services!)
- Messaging system not very helpful – LHCb opted to use JIRA to keep track of data set encoding (at least in initial stages); Still a mechanism to ensure review of encoded data sets is needed (!)
- Lack of human resources – LHCb cannot fill the Uploader, Reviewer roles
- LHCb Coordinator would like to thank the HEPData team for the great support, patience and fast reaction in helping out with manual operations (update InspireHep.net metadata, facilitating update/correction of old records, advice on encoding specific information)

Conclusions and Future Prospects

- HEPData converter/validator software tools are very useful, but less publicized (as well as YAML schema changes). Encodings always need human intervention – what about offering an Integrated Development Environment (e.g. in Ipython) for which collaborations may write specific plug-ins?
- HEPData still a great place to advertise published measurements in machine/human accessible formats. BUT it is isolated from other data preservation and open access portals – duplicates collaborations' efforts for similar goals
- Envisage HEPData as a forum facilitating requests to collaborations for publishing specific data sets (this would be a nice and useful feature)
- Human resources are scarce. Benefits of HEPData encodings still not at the level of invested efforts (e.g. often implies activity without academic benefit). Tendency for coordinators to be view this responsibility as a secondary one.

HEPData Records for LHCb



Thank you!

BACKUPS