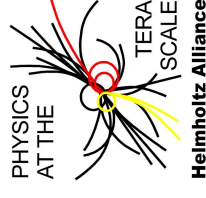


Statistics Tools Group

Plans, ideas, problems



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DESY (Hamburg), 4 May 2009



CURRENT STRUCTURE

- At DESY: Olaf Behnke, Claus Kleinwort, Stefan Schmitt
 - Partial commitment
- To come June 1: Gero Flucke
 - 0.5 FTE for Statistics Tools Group
- Organisation / structural / moral support: TSS
- At the universities
 - Kevin Kröninger (Göttingen) as part of leading team
 - Active contributions to events (schools) from G. Schott (Karlsruhe), C. Sander, B. Mura (both Hamburg), B. List (DESY), F. Ellinghaus (Mainz), ...
- Emphasis so far on schools/workshops.
- Few `own' projects; some discussion about projects at universities.



TOPIC 1: PROJECTS

- Success of Statistics Tools Group will be measured by surplus value created by group in terms of projects lead to success (and in use at LHC).
- Group will publish and advertise list of projects ...
 - ... to be worked on by interested people (at universities, students, fellows, etc.)
 - ... of general relevance for the community (... there is competition out there!)
 - ... that is known to relevant people (ATLAS, CMS, ...)
- Beginning list of projects → next page
- Problem: What is an “Alliance project”? Is it “work within group / experiment, also presented in Alliance” or vice versa?
 - More then semantics!



LIST OF PROJECTS

➤ Starting to build up! Needs discussion and input from all relevant players.

➤ Projects:

- Support / maintenance / extensions of Millipede II
- Implementation of LVMINI in ROOT-compatible way
- C++-implementation of V. Blobel's new fitting tool "Constraint Least Squares with Correlated Data and Systematic Uncertainties".
- Contributions to BAT (Göttingen, MPIM)
- ...
- Service and support for Alliance projects (software!)



LIST OF PROJECTS

➤ From the overview meeting in November 2008 (WIKI pages):

From Wofwiki

Statistics Projects

site notice:

This page is intended as an overview of ongoing projects in the field of statistics within the Helmholtz Alliance. Please follow the links to the respective project if you are interested in more details.

- [RooStatsCms](#), a combination and limit tool (D. Piparo, G. Schott, G. Quast).
- [BAT](#) - a Bayesian Analysis Tool (A. Caldwell, D. Kollar, K. Kroeninger - see also [the arXiv paper](#))
- [Fittingo](#) - a tool for measuring MSSM parameters using collider and low-energy observables (P. Bechtle et al.)
- [GFITTER](#) - a generic fitting package for HEP model testing (M. Goebel, J. Haller et al.)
- [Millepede II](#) - linear least square fits with a large number of parameters] (V. Blobel)
- [lvmini](#) - a fitting tool for large-scale optimization (V. Blobel)
- [Unfolding package](#) (S. Schmitt)



TOPIC 2: MEETINGS

- Supporting projects via discussions and input, but also
- Needed to create “Wir-Gefühl” and Alliance identity.
- Plan:
 - Monthly meetings
 - One educative contribution (seminar talk)
 - Presentation and discussion of projects.
 - Organised by group (Gero).



TOPIC 3: SCHOOLS AND WORKSHOPS

- Plan for two larger events per year:
 - One (rather basic) school (like the “Fitting Workshop” in April 2009) and
 - One more advanced event like the workshop foreseen for Karlsruhe October 2009.
 - Basic school in Spring 2009 (?)
 - Workshop October 2010 in Göttingen.
- One of the events at DESY, one at partner institute.
- Prepare schools / workshops in self-contained way such that
 - can be easily repeated / modified
 - Held by different persons.
- In addition contribution to “Introduction to HEP” school currently being planned.



SELECTED POLITICAL ISSUES

- Success relies on DESY support. If centre and groups are vital for DESY's future as HEP lab then we need ...
 - ... sufficient manpower (with 0.5 FTE we can merely coordinate, but not productively contribute).
 - ... access to fellows (even at costs for other groups). Sufficient representation in the fellow and student selection process.
 - ... representation in DESY organisational structure?

