

Blind Test Proposal: Discussion

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DESY

Unfolding Framework Meeting
17.11.2010

Remarks after Discussion with Tim and Natalie

- Generally a goof idea.
- Acceptance $A(x_t)$ and resolution $R(x_t, x_m)$ not to be “published” analytically, but as a MC training sample
 - Loop on sample a la `RooUnfoldResponse::Fill( $x_m$ ,  $x_t$ )` and `RooUnfoldResponse::Miss( $x_t$ )`.
- Open question is treatment of output binning:
 - fixed vs algorithm/data dependence
- Focus on unfolding data distribution (“bin contents”), independent of fitting parameters.
 - fitting to be done with common fit setup.
 - take care that true distribution is “fittable”
(dicing parameters might result in some that are highly correlated)

Test Quantities

Three types (can be used for both bin content and fitted parameters):

- Residual based:
 - RMS of residuals (truth - unfolded)
- Covariance matrix properties
 - condition of covariance matrix
 - mean global correlation
 - “volume of dispersion ellipsoid, i.e. $\det(\text{Cov}(\hat{x}))$ ”
(I still have to understand that. . .)
- Combined:
 - χ^2 between truth and unfolded

Algorithms and people?

- TRUEE: Natalie?
- SVD: ?
- TUnfold: Thomas Peiffer ??
- D'Agostini: Katharina?, Jan?
 - version to be used?