

# **Alliance Workshop on Unfolding and Data Correction**

## **Report of Contributions**

Contribution ID: 0

Type: **not specified**

## Improved iterative Bayesian unfolding

*Thursday, 27 May 2010 14:10 (30 minutes)*

This paper reviews the basic ideas behind a Bayesian unfolding published some years ago and improves their implementation. In particular, uncertainties are now treated at all levels by probability density functions and their propagation is performed by Monte Carlo integration.

Thus, small numbers are better handled and the final uncertainty does not rely on the assumption of normality.

Theoretical and practical issues concerning the iterative use of the algorithm are also treated.

The new program, implemented in the R language, is freely available, together with sample scripts to play with toy models.

**Presenter:** D'AGOSTINI, Giulio (Rome)

Contribution ID: 1

Type: **not specified**

# Multidimensional binning-free unfolding method

*Thursday, 27 May 2010 14:40 (30 minutes)*

**Presenter:** ZECH, Guenter (Siegen)

Contribution ID: 2

Type: **not specified**

## **Unfolding requirements and some details on algorithms and problems related to unfolding**

*Thursday, 27 May 2010 15:10 (30 minutes)*

**Presenter:** Prof. BLOBEL, Volker (Uni HH)

Contribution ID: 3

Type: **not specified**

## Discussion on some unfolding issues

*Thursday, 27 May 2010 16:00 (20 minutes)*

**Presenter:** ZECH, Guenter (Siegen)

Contribution ID: 4

Type: **not specified**

# RooUnfold

**Presenter:** ADYE, Tim

Contribution ID: 5

Type: **not specified**

## **Decomposition of a covariance matrix into uncorrelated and correlated errors**

*Thursday, 27 May 2010 16:20 (20 minutes)*

**Presenter:** LIST, Benno (Hamburg)

Contribution ID: 6

Type: **not specified**

## Comparison of methods

*Thursday, 27 May 2010 16:40 (20 minutes)*

**Presenter:** BIERWAGEN, Katharina (Goettingen)



Contribution ID: 7

Type: **not specified**

## **Discussion session: Basics, concepts, missing implementations ...**

*Thursday, 27 May 2010 17:00 (1 hour)*

Contribution ID: 8

Type: **not specified**

## Implementations: RooUnfold

*Friday, 28 May 2010 09:05 (20 minutes)*

**Presenter:** ADYE, Tim

Contribution ID: 9

Type: **not specified**

## Implementations: TRUEE

*Friday, 28 May 2010 09:25 (20 minutes)*

**Presenter:** MILKE, Natalie

Contribution ID: **10**

Type: **not specified**

## Implementations: TUnfold

*Friday, 28 May 2010 09:45 (20 minutes)*

**Presenter:** SAUTER, Michel (Universitaet Heidelberg)

Contribution ID: **11**

Type: **not specified**

## Discussion: Implementations

*Friday, 28 May 2010 10:05 (20 minutes)*

Contribution ID: 12

Type: **not specified**

## Experience / benchmarkings: CMS

*Friday, 28 May 2010 10:45 (20 minutes)*

**Presenter:** PEIFFER, Thomas (Karlsruhe)

Contribution ID: 13

Type: **not specified**

## Experience / benchmarking: Unfolding in ATLAS

*Friday, 28 May 2010 11:05 (20 minutes)*

**Presenter:** SANDHOFF, Marisa (Wuppertal)

Contribution ID: 14

Type: **not specified**

## Experience with GURU

*Friday, 28 May 2010 11:25 (20 minutes)*

**Presenter:** ECKWEILER, Sebastian (Mainz)



Contribution ID: 15

Type: **not specified**

## Experience / benchmarking: Unfolding in ATLAS

*Friday, 28 May 2010 11:45 (20 minutes)*

**Presenter:** Mr KAR, Deepak (University of Florida)

Contribution ID: **16**

Type: **not specified**

## Discussion: next steps?

*Friday, 28 May 2010 12:05 (1 hour)*

Contribution ID: 17

Type: **not specified**

## Introduction to the subject

*Thursday, 27 May 2010 14:05 (5 minutes)*

**Presenter:** Prof. QUADT, Arnulf (II. Physikalisches Institut, Georg-August-Universität Göttingen)

Contribution ID: **18**

Type: **not specified**

# Welcome

*Thursday, 27 May 2010 14:00 (5 minutes)*

**Presenter:** Dr SCHOERNER-SADENIUS, Thomas (DESY)