

# HERAFitter User's meeting 27.02.2013

- Today's agenda

## Agenda

Title	Speaker	File	Time
HERAFitter Status	V. Radescu, R. Placakyte	<a href="#">@Status.pdf</a>	15min
ACOT update	F. Olness group	<a href="#">@acot.pdf</a>	15min
QCDNUM update	M. Botje	<a href="#">@mb.pdf</a>	10min
Scale unification	A. Gizhko	<a href="#">@ag.pdf</a>	15min
HERAverage	P. Belov	<a href="#">@pb.pdf</a>	15min
Discussion	All	<a href="#">@discus.pdf</a>	15min

- Next User's meeting proposal: 18, 19, 26, 27 March:
  - <http://doodle.com/zcmranaapvbkybx6>

# HERAFitter -0.3.0

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## Release Schedule

- The upcoming release is a beta release: herafitter-0.3.0
- Time schedule for the next release:
  - ▽ Release candidate (v2) available for testing to developers since 19.02
    - Improved warnings, bug fixes
  - ▽ Next HERAFitter User's meeting in March ready for release

## Package presentation:

- theory files have been separated from tar file, can be downloaded from the web page
- no registration will be anymore required for downloading of release
- A ~50page documentation will be included together with a web based standard tool for generating documentation (DOXYGEN) nightly build and linked to the herfitter.org

# New in beta3

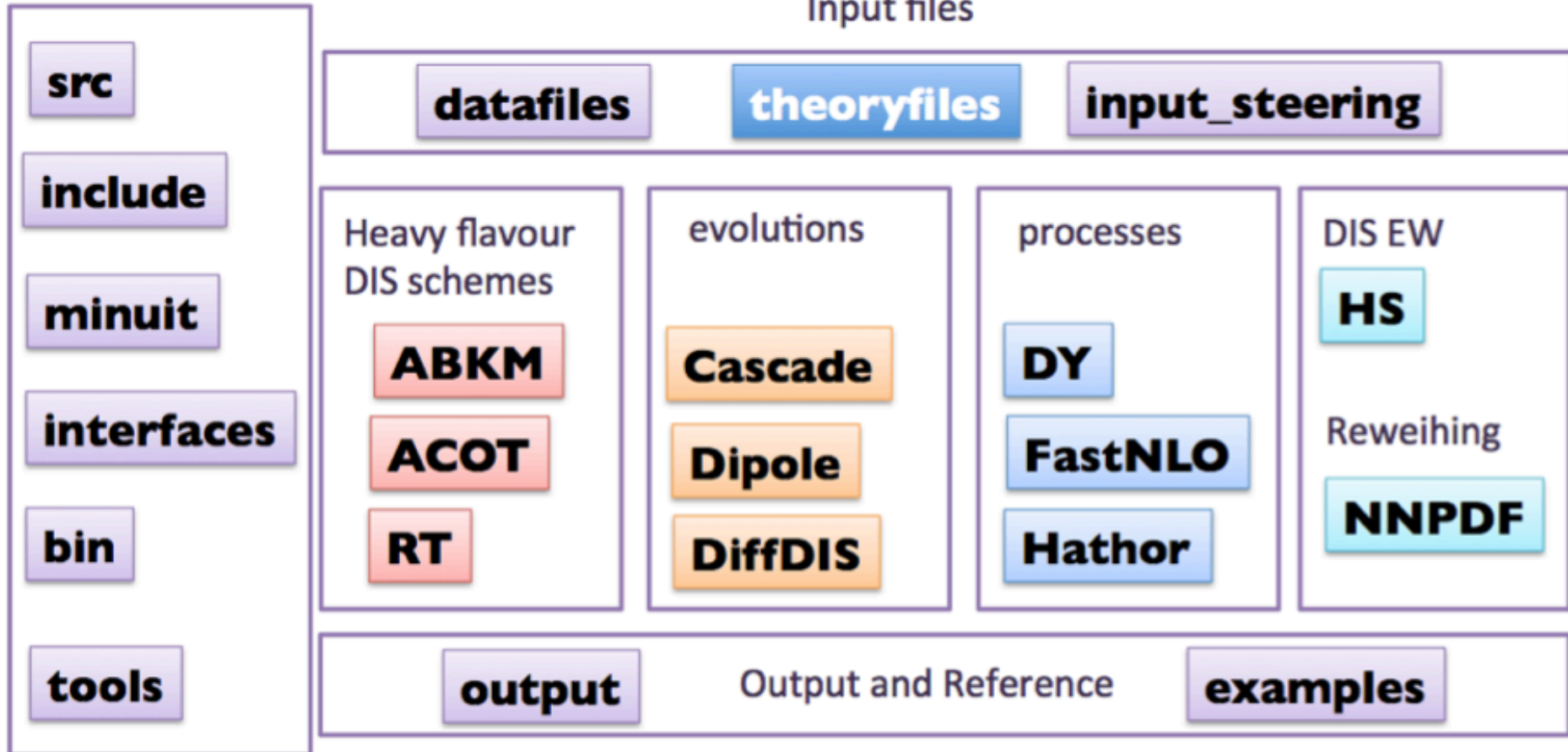
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- **New functionalities:**
  - ▽ Flexible Parametrisation and regularisation techniques
  - ▽ New FastNLO format
  - ▽ PDF reweighting based on eigenvectors
  - ▽ Reorganisation of the chisquare module (though old style is kept too)
    - Offset method
    - Covariance matrix for chisquare representation
  - ▽ uPDFs
  - ▽ New dipole models
  - ▽ Newer EW code for DIS
  - ▽ Updated ACOT code
  - ▽ Treatment for asymmetric systematic uncertainties
  - ▽ Inclusion of more data sets
  - ▽ Improvement of naming convention in steerings
  - Added a User Example directory for reference outputs
  - Added via automake tools a “make check” to test sanity of the codes

HERAverager for combining data is developed independently, but compatible with HERAFitter

# New in beta3

Common modules



HERAverager for combining data is developed independently, but compatible with HERAFitter

# Ongoing and Future Developments

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- ▽ Consistent implementation of scale variations in DIS (see A. Grizhko)
  - ▽ QED PDFs (see M. Botje for QCDNUM generalised convolution kernels)
  - ▽ Paralelising of jobs runnings based on MPI
  - ▽ NNLO ACOT
  - ▽ EW (DIS) restructuring
  - ▽ Blobel minimisation/chisquare
  - ▽ Nuclear PDFs
  - ▽ Photon PDF treatment
  - ▽ Additional low  $x$  models
  - ▽ Different evolution codes
  - ▽ Improvements to plotting tools
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- **Computing:** It was created a new computing group for HERAFitter to assure harmonious development among various developers

# Outreach

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- **Stats:**
  - 87 download requests (users)
    - ▽ 31 developers
- **List of upcoming meetings**
  - ▽ QCD and MORIOND 14.03.2013 (Ringaile presentation)
  - ▽ Next HERAFitter User's meeting – define date 18-27.03?
  - ▽ Pre-APS meeting in Denver 10.04.2013 (VR presentation)
  - ▽ PDF4LHC at CERN 17.04.2013 – dedicated presentation?
  - ▽ DIS in Marseille 21-28.04.2013 – dedicated HERAFitter talk
    - HERAFitter User's meeting on Tuesday of DIS