

DPHEP@INSPIRE

What have we done?

What are we doing?

What can we do?

Travis Brooks (SLAC)

Zaven Akopov (DESY)



DPHEP Levels of Preservation

Preservation Model	Use case
1. Provide additional documentation	Publication-related information search
2. Preserve the data in a simplified format	Outreach, simple training analyses
3. Preserve the analysis level software and data format	Full scientific analysis based on existing reconstruction
4. Preserve the reconstruction and simulation software and basic level data	Full potential of the experimental data

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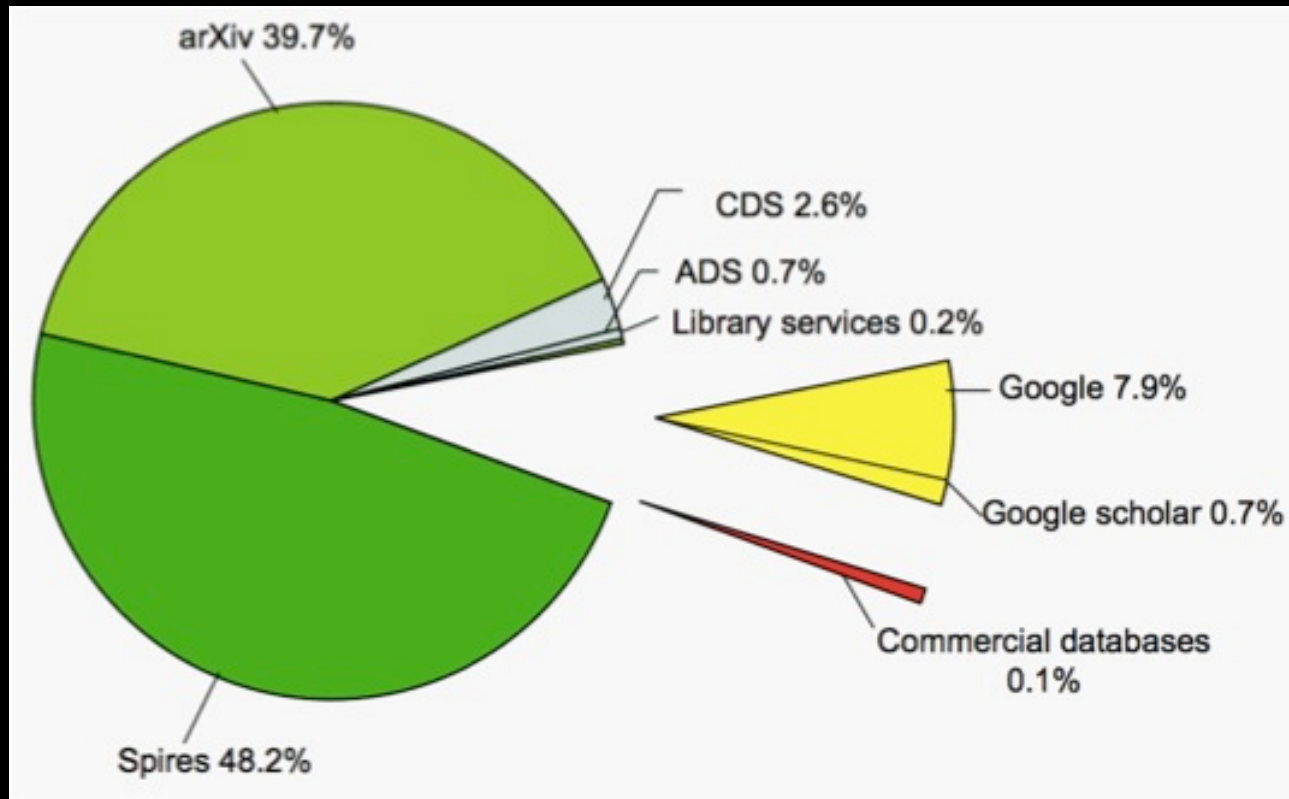
INSPIRE & Data Preservation

- What is INSPIRE?
- Current Capabilities
- DPHEP Level 1 - Right now
- DPHEP Level 2 - For the future

INSPIRE & Data Preservation

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Where do HEP scientists look for info?



Survey of 2,000+ Physicists in 2007

“Contains all relevant (and virtually no irrelevant) material, and has a simple-to-use interface.”

“Comprehensive information (affiliation of the authors, citation tracking, link to published version, etc)”



Enter INSPIRE

CERN, DESY, Fermilab, SLAC

INVENIO

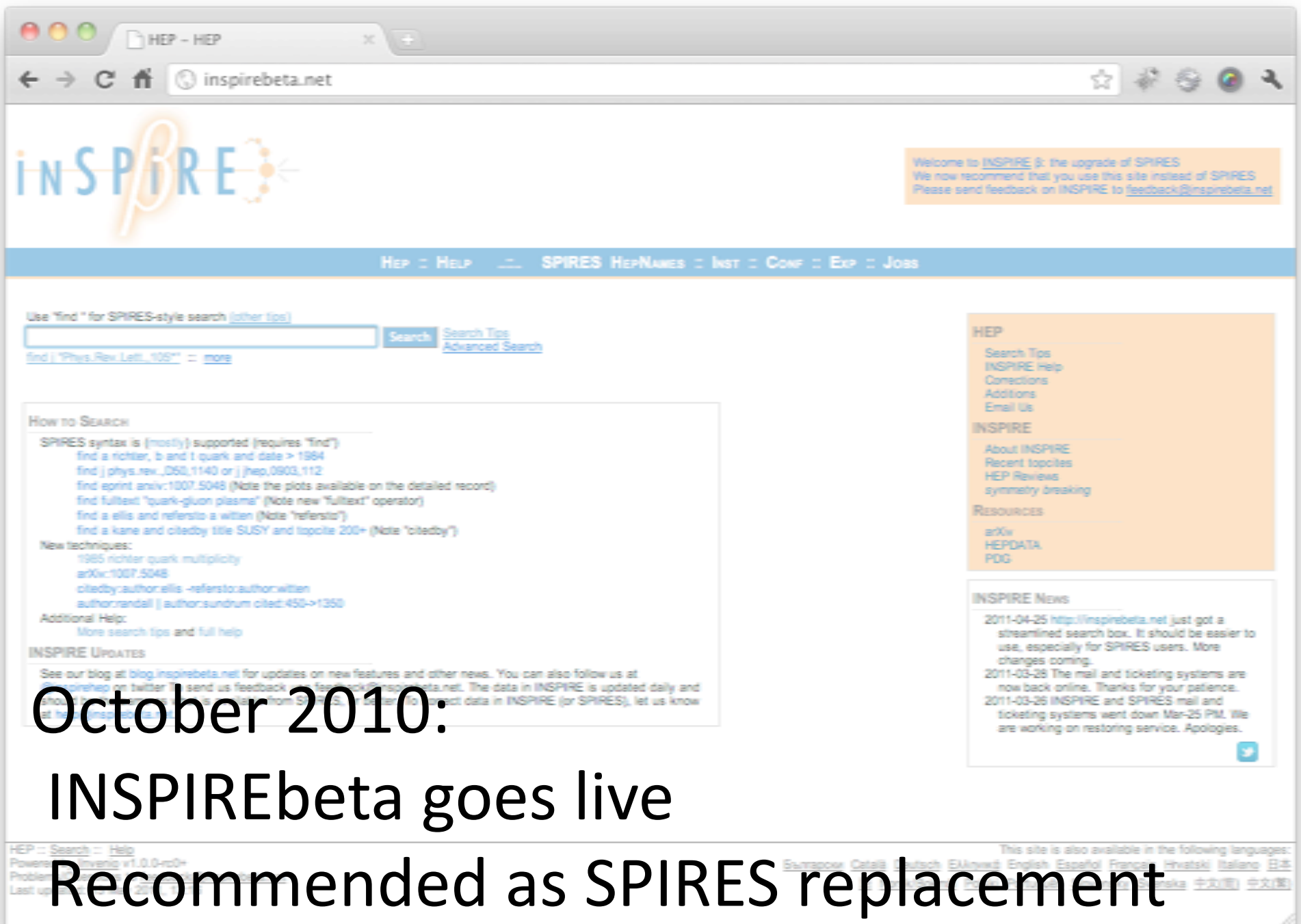
+

SPIRES

The screenshot shows a web browser window with the address bar displaying "inspirebeta.net". The main content area features the "INSPIRE" logo on the left, which includes a stylized Greek letter beta (β). On the right, an orange box contains the following text: "Welcome to [INSPIRE \$\beta\$](#) : the upgrade of SPIRES. We now recommend that you use this site instead of SPIRES. Please send feedback on INSPIRE to feedback@inspirebeta.net". Below this is a blue navigation bar with links: "HEP :: HELP :: SPIRES HEPNAMES :: INST :: CONF :: EXP :: JOBS". At the bottom left, there is a search section with the text "Search 875,340 records for:" followed by an empty search input field, a dropdown menu set to "any field", and "Search" and "Browse" buttons. Below the input field are links for "Search Tips" and "Advanced Search". On the bottom right, there is an orange box labeled "HEP" containing links for "Search Guide", "Corrections", and "Additions".

INSPIRE Timeline

- 2008
 - Requirements
 - Proof of Concept
- 2009
 - Development
 - Plots, Fulltext, Storage of files, SPIRES syntax
- 2010 (summer)
 - beta complete – initial testing and feedback



October 2010:

INSPIREbeta goes live

Recommended as SPIRES replacement

INSPIRE & Data Preservation

- What is INSPIRE?
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Welcome to [INSPIRE \$\beta\$](#) : the upgrade of SPIRES
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HEP :: HELP SPIRES HEPNAMES :: INST :: CONF :: EXP :: JOBS

Use "find " for SPIRES-style search ([other tips](#))

Search

[Search Tips](#)
[Advanced Search](#)

[find j "Phys.Rev.Lett.,105"](#) :: [more](#)

HOW TO SEARCH

- SPIRES syntax is (mostly) supported (requires "find")
 - [find a richter, b and t quark and date > 1984](#)
 - [find j phys.rev.,D50,1140 or j jhep,0903,112](#)
 - [find eprint arxiv:1007.5048](#) (Note the plots available on the detailed record)
 - [find fulltext "quark-gluon plasma"](#) (Note new "fulltext" operator)
 - [find a ellis and refersto a witten](#) (Note "refersto")
 - [find a kane and citedby title SUSY and topcite 200+](#) (Note "citedby")

New techniques:

- [1985 richter quark multiplicity](#)
- [arXiv:1007.5048](#)

HEP

- [Search Tips](#)
- [INSPIRE Help](#)
- [Corrections](#)
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RESOURCES

- [arXiv](#)
- [HEPDATA](#)
- [PDG](#)

find fulltext "quark-gluon plasma"

Search

[Search Tips](#)
[Advanced Search](#)

[find | "Phys.Rev.Lett.,105"](#) :: [more](#)

Sort by:

latest first

desc.

- or rank by -

Display results:

25 results

single list

Output format:

HTML brief

Warning: full-text search is only available for a subset of papers mostly from 2006-2011.

HEP

2,320 records found 1 - 25

jump to record: 1

Search took 0.49 seconds.

1. **Wilson loops in $(p+1)$ -dimensional Yang-Mills theories using gravity/gauge theory correspondence.**

[Somdeb Chakraborty](#), [Shibaji Roy](#). Mar 2011. 16 pp.

e-Print: [arXiv:1103.1248 \[hep-th\]](#)

[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [EndNote](#)

[Abstract](#) and [Postscript](#) and [PDF](#) from arXiv.org

Snippets courtesy of arXiv

... 6, 7, 8]. In strongly coupled gauge theories of interacting **quark-gluon plasma** Wilson loops can be related to various measurable quantities in...

... to the static quark-antiquark potential [9] in a moving **quark-gluon plasma** On the other hand the expectation value of a particular...

... a dipole moving with an arbitrary velocity through the hot **quark-gluon plasma** including the screening length 11 12 13 14 as well...

... v . In this frame the dipole is static and the **quark-gluon plasma** is moving with velocity v in the negative x_p direction...

find fulltext "quark-mixing n x +

inspirebeta.net/search?ln=en&ln=en&p=find+fulltext+"quark-mixing+matrix"+and+topcite+50->100&action_search=Searc...

find fulltext "quark-mixing matrix" and topcite 50->100 [Search](#) [Search Tips](#)
[Advanced Search](#)

[find | "Phys.Rev.Lett.,105*" :: more](#)

Sort by: Display results: Output format:

Warning: full-text search is only available for a subset of papers mostly from 2006-2011.

HEP 12 records found Search took 39.42 seconds.

1. **Improved measurement of the CKM angle γ in $B^{\mp} \rightarrow D^{(*)} K^{(\mp)}$ decays with a Dalitz plot analysis of D decays to $K_S^0 \pi^+ \pi^-$ and $K_S^0 K^+ K^-$.**
BABAR Collaboration ([Bernard Aubert \(Annecy, LAPP\) et al.](#)). SLAC-PUB-13209, BABAR-PUB-08-006. Apr 2008. 22 pp.
Published in **Phys.Rev. D78 (2008) 034023**
e-Print: [arXiv:0804.2089 \[hep-ex\]](#)

[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [EndNote](#)
[Abstract](#) and [Postscript](#) and [PDF](#) from arXiv.org
[Journal Server](#)
[SLAC Document Server](#)

Snippets courtesy of arXiv
... Standard Model (SM) the phase in the CabibboKobayashi-Maskawa (CKM **quark-mixing matrix** 1 is the sole source of CP violation in the...
... to account for potential ΔE peaking background, although we **find** no significant peaking structure in any of our

Bethke, S. (605 papers)

[This is me. Verify my publication list.](#)

Name variants

Bethke, S. ([547](#))
Bethke, Siegfried ([53](#))
Bethke, S ([3](#))
Bethke, S., (ed.) ([1](#))
Bethke, Sigfried ([1](#))

Papers

[All papers \(605\)](#)
[Published \(539\)](#)
[Conference \(44\)](#)
[Review \(28\)](#)
[Introductory \(2\)](#)
[Thesis \(2\)](#)
[Lectures \(1\)](#)
[Book \(1\)](#)

Affiliations

[unknown affiliation \(458\)](#)
[Heidelberg U. \(75\)](#)
[Munich, Max Planck Inst. \(36\)](#)
[Aachen, Tech. Hochsch. \(18\)](#)
[Heidelberg, Max Planck Inst. \(13\)](#)
[LBL, Berkeley \(4\)](#)
[Muenchen MPI Phys. \(1\)](#)
[CERN \(1\)](#)
[UC, Berkeley \(1\)](#)

Frequent co-authors

[Duerdoth, I.P. \(481\)](#)
[Loebinger, F.K. \(481\)](#)
[Kobayashi, T. \(462\)](#)
[von Krogh, J. \(458\)](#)

Person Search

bethke

Search

1. Bethke, Sigfried Bethke, Siegfried Bethke, S.

[Recent Papers](#)

[Publication List \(S.Bethke.1\)](#)

Showing the 5 most recent documents:

- **Measurements of underlying-event properties using neutral and charged particles in pp collisions at 900 GeV and 7 TeV with the ATLAS detector at the LHC**
[ATLAS Collaboration \(Georges Aad \(Freiburg U.\) et al.\)](#).
- **Search for stable hadronising squarks and gluinos with the ATLAS experiment at the LHC**
[ATLAS Collaboration \(Georges Aad \(Freiburg U.\) et al.\)](#).
- **Search for high-mass states with one lepton plus missing transverse momentum in proton-proton collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector**
[ATLAS Collaboration \(Georges Aad \(Freiburg U.\) et al.\)](#).
- **Search for Massive Long-lived Highly Ionising Particles with the ATLAS Detector at the LHC**
[ATLAS Collaboration \(Georges Aad \(Freiburg U.\) et al.\)](#).
- **Search for squarks and gluinos using final states with jets and missing transverse momentum with the ATLAS detector in $\sqrt{s} = 7$ TeV proton-proton collisions**
[Atlas Collaboration \(Georges Aad \(Freiburg U.\) et al.\)](#)

Attribute papers for: S.Bethke.1

Navigation: Run paper attribution for another author

Names variants:

Bethke, Sigfried (1); Bethke, Siegfried (53); Bethke, S. (551);

Papers (605)

Papers removed from this profile (0)

Select All | Select None | Invert Selection | Hide successful claims

Yes, those papers are by this person.
 No, those papers are not by this person

Search:

	Paper Short Info	Author Name	Affiliation	Actions
<input type="checkbox"/>	Measurement of Dijet Azimuthal Decorrelations in pp Collisions at $\sqrt{s}=7$ TeV ATLAS Collaboration (Georges Aad (Freiburg U.) <i>et al.</i>).	Bethke, Siegfried	Heidelberg, Max Planck Inst.	<input checked="" type="checkbox"/> Yes, this paper is by this person. <input checked="" type="checkbox"/> No, this paper is <i>not</i> by this person <input type="checkbox"/> Assign to another person
<input type="checkbox"/>	Measurements of underlying-event properties using neutral and charged particles in ppp collisions at 900 GeV and 7 TeV with the ATLAS detector at the LHC ATLAS Collaboration (Georges Aad (Freiburg U.) <i>et al.</i>).	Bethke, Siegfried	Heidelberg, Max Planck Inst.	<input checked="" type="checkbox"/> Yes, this paper is by this person. <input checked="" type="checkbox"/> No, this paper is <i>not</i> by this person <input type="checkbox"/> Assign to another person
<input type="checkbox"/>	Search for high-mass states with one lepton plus missing transverse momentum in proton-proton collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector	Bethke, Siegfried	Heidelberg, Max Planck Inst.	<input checked="" type="checkbox"/> Yes, this paper is by this person. <input checked="" type="checkbox"/> No, this paper is <i>not</i> by this person <input type="checkbox"/> Assign to another person

INSPIRE & Data Preservation

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- DPHEP Level 1 - Right now
- DPHEP Level 2 - For the future

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Reminder: Results from PARSE.Insight

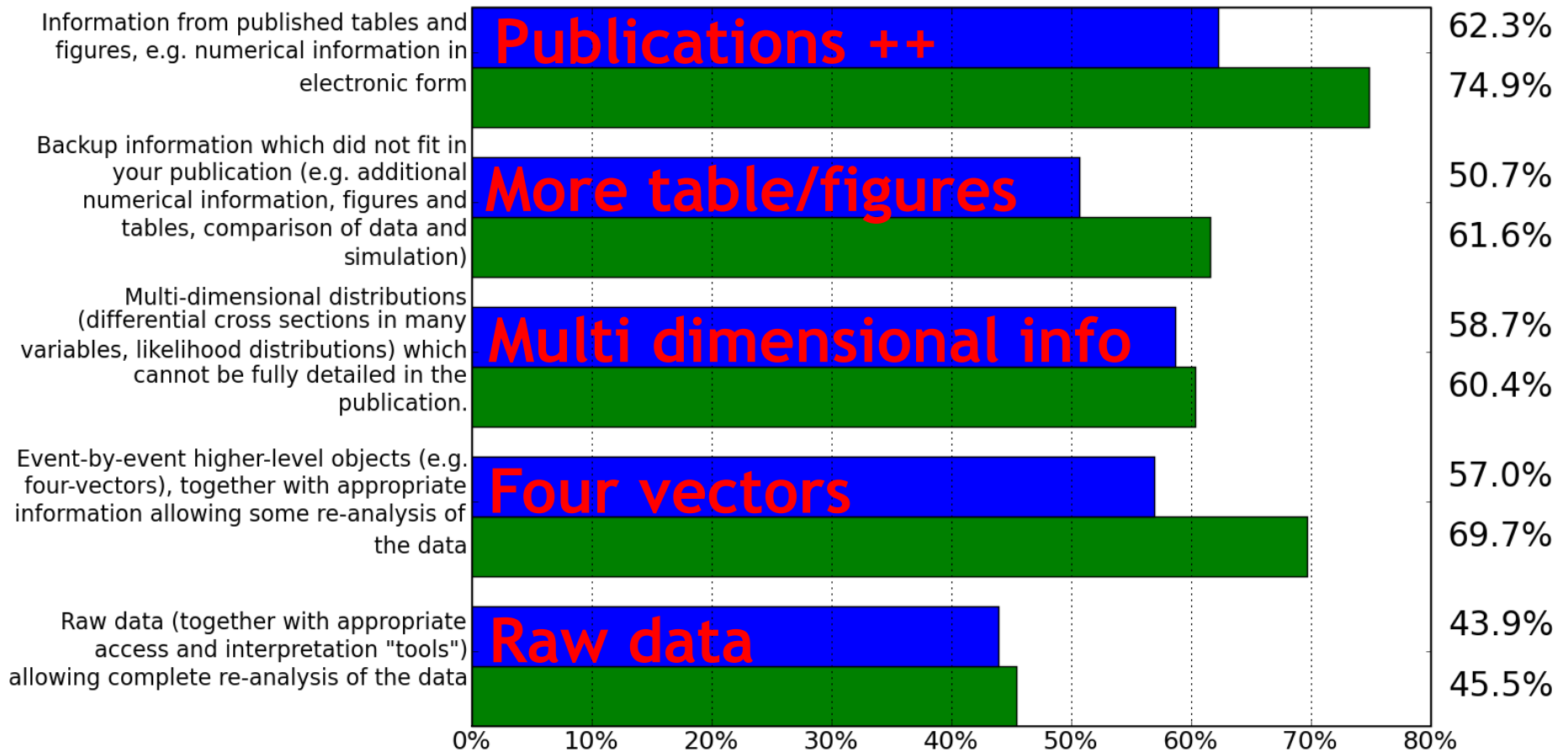
A survey on HEP data preservation, re-use and (open) access
<http://arxiv.org/abs/0906.0485>

Andre Holzner (FP7/CERN), Peter Igo-Kemenes (Gjøvik/CERN), Salvatore Mele (CERN)

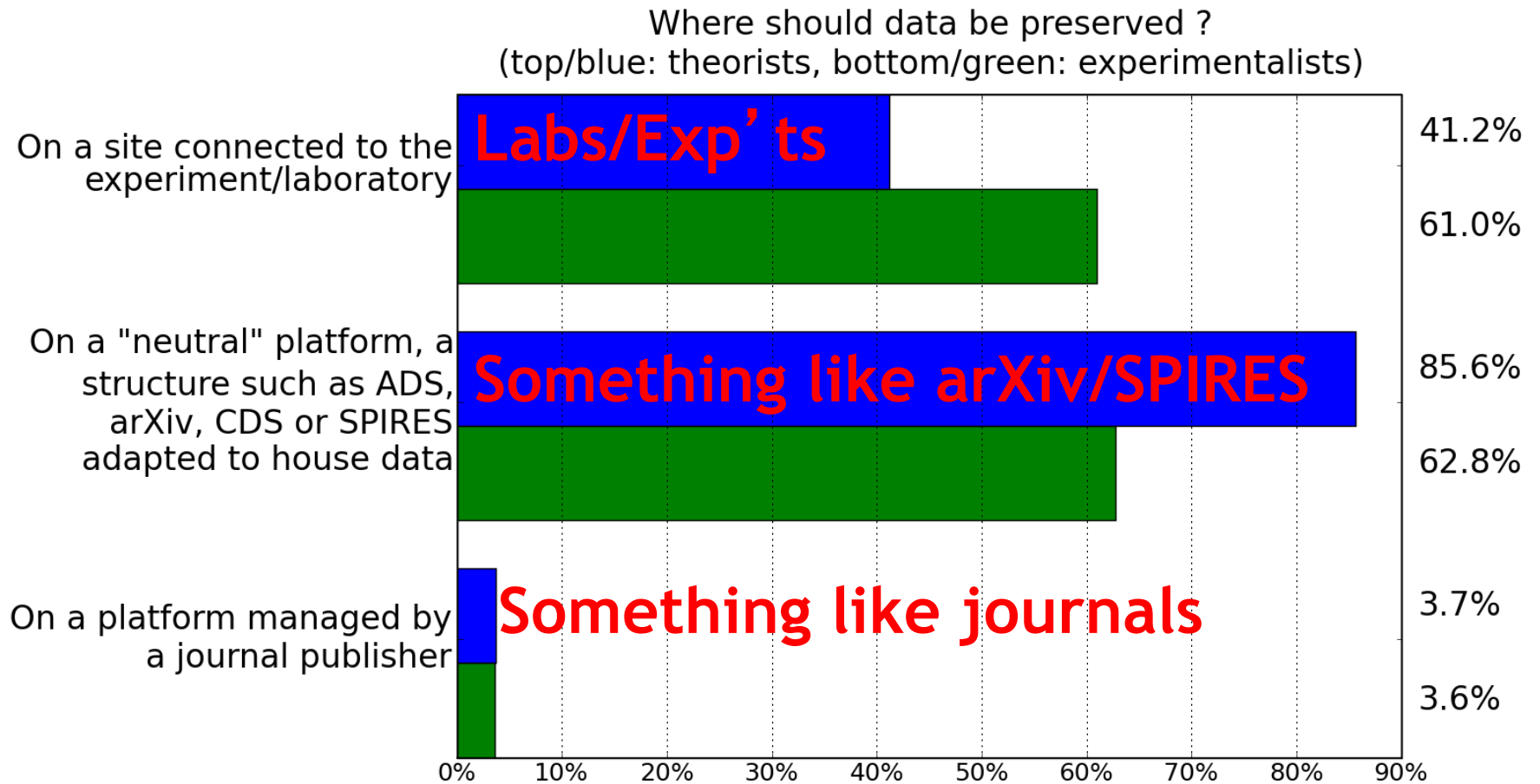


Store Everything – Especially High Level

At what level of detail should data be preserved ?
(top/blue: theorists, bottom/green: experimentalists)



And store it somewhere like SPIRES...



invariant mass pairs cn:CDF

inspirebeta.net/search?ln=en&ln=en&p=invariant+mass+pairs+cn%3ACDF&action_search=Search&sf=&so=d&rm=&rg=25&s...

HEP :: HELP SPIRES HEPNAMES :: INST :: CONF :: EXP :: JOBS

invariant mass pairs cn:CDF Search [Search Tips](#) [Advanced Search](#)

[find | "Phys.Rev.Lett.,105*" :: more](#)

Sort by: latest first desc - or rank by - Display results: 25 results single list Output format: HTML brief

HEP 44 records found 1 - 25 ▶ jump to record: 1 Search took 0.04 seconds.

1. **Invariant Mass Distribution of Jet Pairs Produced in Association with a W boson in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV.**
CDF Collaboration (T. Aaltonen (Helsinki Inst. of Phys.) *et al.*). FERMILAB-PUB-11-164-E. Apr 2011. 8 pp.
Published in **Phys.Rev.Lett.** 106 (2011) 171801
e-Print: [arXiv:1104.0699 \[hep-ex\]](#)

[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [EndNote](#)
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Information

References (19)

Citations (36)

Files

Plots

Invariant Mass Distribution of Jet Pairs Produced in Association with a W boson in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV.

CDF Collaboration (T. Aaltonen (Helsinki Inst. of Phys.) *et al.*) [Show all 507 authors.](#)

FERMILAB-PUB-11-164-E.

Apr 2011

8 pp.

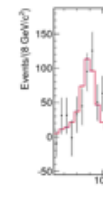
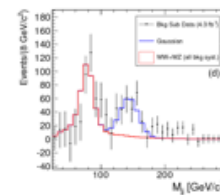
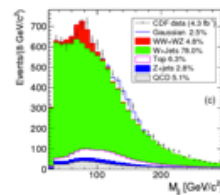
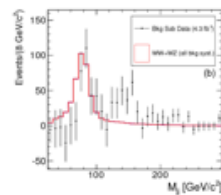
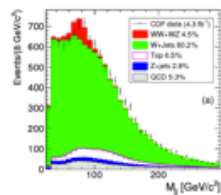
Phys.Rev.Lett. 106 (2011) 171801

e-Print: [arXiv:1104.0699 \[hep-ex\]](#)

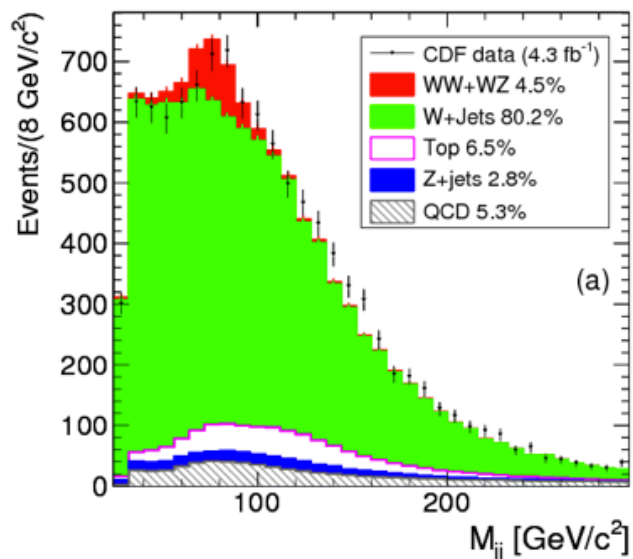
Abstract: We report a study of the invariant mass distribution of jet pairs produced in association with a W boson using data collected with the CDF detector which correspond to an integrated luminosity of 4.3 fb^{-1} . The observed distribution has an excess in the $120\text{-}160 \text{ GeV}/c^2$ mass range which is not described by current theoretical predictions within the statistical and systematic uncertainties. In this letter we report studies of the properties of this excess.

We report a study of the invariant mass distribution of jet pairs produced in association with a W boson using data collected with the CDF detector which correspond to an integrated luminosity of 4.3 fb^{-1} . The observed distribution has an excess in the $120\text{-}160 \text{ GeV}/c^2$ mass range which is not described by current theoretical predictions within the statistical and systematic uncertainties. In this letter we report studies of the properties of this excess.

Keyword(s): INSPIRE: [jet: mass spectrum: measured](#) | [jet: associated production](#) | [CDF](#)



Invariant Mass Distribution of Jet Pairs Produced in Association with a W boson in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV - CDF Collaboration (Aaltonen, T. *et al.*) Phys.Rev.Lett. 106 (2011) 171801 . arXiv:1104.0699 [hep-ex] . FERMILAB-PUB-11-164-E



The dijet invariant mass distribution. The sum of electron and muon events is plotted. In the left plots we show the fits for known processes only (a) and with the addition of a hypothetical Gaussian component (c). On the right plots we show, by subtraction, only the resonant contribution to M_{jj} including WW and WZ production (b) and the hypothesized narrow Gaussian contribution (d). In plot (b) and (d) data points differ because the normalization of the background changes between the two fits. The band in the subtracted plots represents the sum of all background shape systematic uncertainties described in the text. The distributions are shown with a 8 GeV/c² binning while the actual fit is performed using a 4 GeV/c² bin size.

The dijet invariant mass distribution

Experimental Notes

Why Notes on INSPIRE?

- Stored on “at-risk” servers, no provision for preservation
- Most of these are associated with publications!
- INSPIRE as initiative of the labs is a natural long-term home for these
- Additionally INSPIRE has the necessary connections to other community resources:
 - HEPDATA
 - arXiv
 - ADS

Why Notes on INSPIRE?

- Storing these documents in INSPIRE connects them to the publication record...
- ...and preserves them beyond the lifetime of experimental web servers

singleTop

Search

[Search Tips](#)
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[find | "Phys.Rev.Lett.,105*" :: more](#)

Sort by:

latest first

desc.

- or rank by -

Display results:

25 results

single list

Output format:

HTML brief

HEP

2 records found

Search took 0.03 seconds.

1. **"SingleTop" - an event generator for the single top quark production at the LHC. Part 1.**

[Edouard Boos](#), [Lev Dudko](#), [Viktor Savrin](#) ([INP, Moscow State University, Russia](#)). CMS-NOTE-2000-065, CERN-CMS-NOTE-2000-065. Oct 25, 2000.

[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [EndNote](#)

[Link to fulltext](#)

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2. **Method for simulating electroweak top-quark production events in the NLO approximation: SingleTop event generator.**

[E.E. Boos](#), [V.E. Bunichev](#), [L.V. Dudko](#), [V.I. Savrin](#), [A.V. Sherstnev](#) ([Moscow State U.](#)). 2006. 14 pp.

Published in **Phys.Atom.Nucl.** **69** (2006) 1317-1329

[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [EndNote](#)

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Information References Citations Files Plots

``SingleTop" - an event generator for the single top quark production at the LHC. Part 1 - Boos, Edouard *et al.* . CMS-NOTE-2000-065, CERN-CMS-NOTE-2000-065

file(s):

note00_065
version 1 [note00_065.pdf](#) [319.57 KB] 03 May 2011, 13:51

[Similar records](#)



The Compact Muon Solenoid Experiment

CMS Note

Mailing address: CMS CERN, CH-1211 GENEVA 23, Switzerland



“SingleTop” - an event generator for the single top quark production at the LHC. Part 1.

E.E. Boos^{a)}, L.V. Dudko^{b)}, and V.I. Savrin^{c)}

Institute of Nuclear Physics, Moscow State University

Abstract


We present the first version of the event generator SingleTop, which is based on the complete tree-level diagram calculations by means of the CompHEP program. A special attention is paid to a proper matching of the $2 \rightarrow 3$ W -gluon fusion contribution to the relevant $2 \rightarrow 2$ process, which includes the b -quark in the initial state. The latter process is simulated by means of the PYTHIA program. The matching of two contributions allows to simulate correctly events in the entire kinematical region avoiding the double counting and the events with negative weights.

DPHEP Notes Preservation Pilot

- HERA:
 - Currently stored on experiment's server or IT facilities
 - Webpages, AFS directories, home-made structures, etc.
 - These infrastructures will NOT be preserved by DESY
 - No interoperability or standards
- HERA working with INSPIRE at DESY for ingestion/curation
 - Zaven Akopov (INSPIRE) David South (HI)
 - Test set of a few records – Live in production

H1 Internal Notes - HEP

inspirebeta.net/collection/H1%20Internal%20Notes



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H1 Internal Notes

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[find rn H1-IN-007](#)

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This collection is restricted. If you think you have right to access it, please authenticate yourself.

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find rn H1 - Search Results - x
inspirebeta.net/search?ln=en&cc=H1+Internal+Notes&p=find+rn+H1&action_search=Search

H1 Internal Notes 11 records found Search took 0.15 seconds.

- 1. Correction of detector effects: bin-by-bin and unfolding.**
H1 Collaboration ([Stefan Schmitt](#) for the collaboration). H1-IN-633. Mar 2011.
[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [EndNote](#)
[Detailed record](#) - [Similar records](#) - [Attribute this paper](#)
- 2. Addition to Radiative Corrections for Charged Current Process at HERA.**
H1 Collaboration ([Zhiqing Zhang](#) for the collaboration). H1-IN-632. Dec 2010.
[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [EndNote](#)
[Detailed record](#) - [Similar records](#) - [Attribute this paper](#)
- 3. The Low Pt HFS and Jet Energy Calibration.**
H1 Collaboration ([S. Osman et al.](#)). H1-IN-631. Feb 2009.
[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [EndNote](#)
[Detailed record](#) - [Similar records](#) - [Attribute this paper](#)
- 4. Energy loss measurement with the H1 Central Jet Chamber.**
H1 Collaboration ([C. Kleinwort](#) for the collaboration). H1-IN-630. Aug 2008.
[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [EndNote](#)
[Detailed record](#) - [Similar records](#) - [Attribute this paper](#)

Information References Citations Files Plots

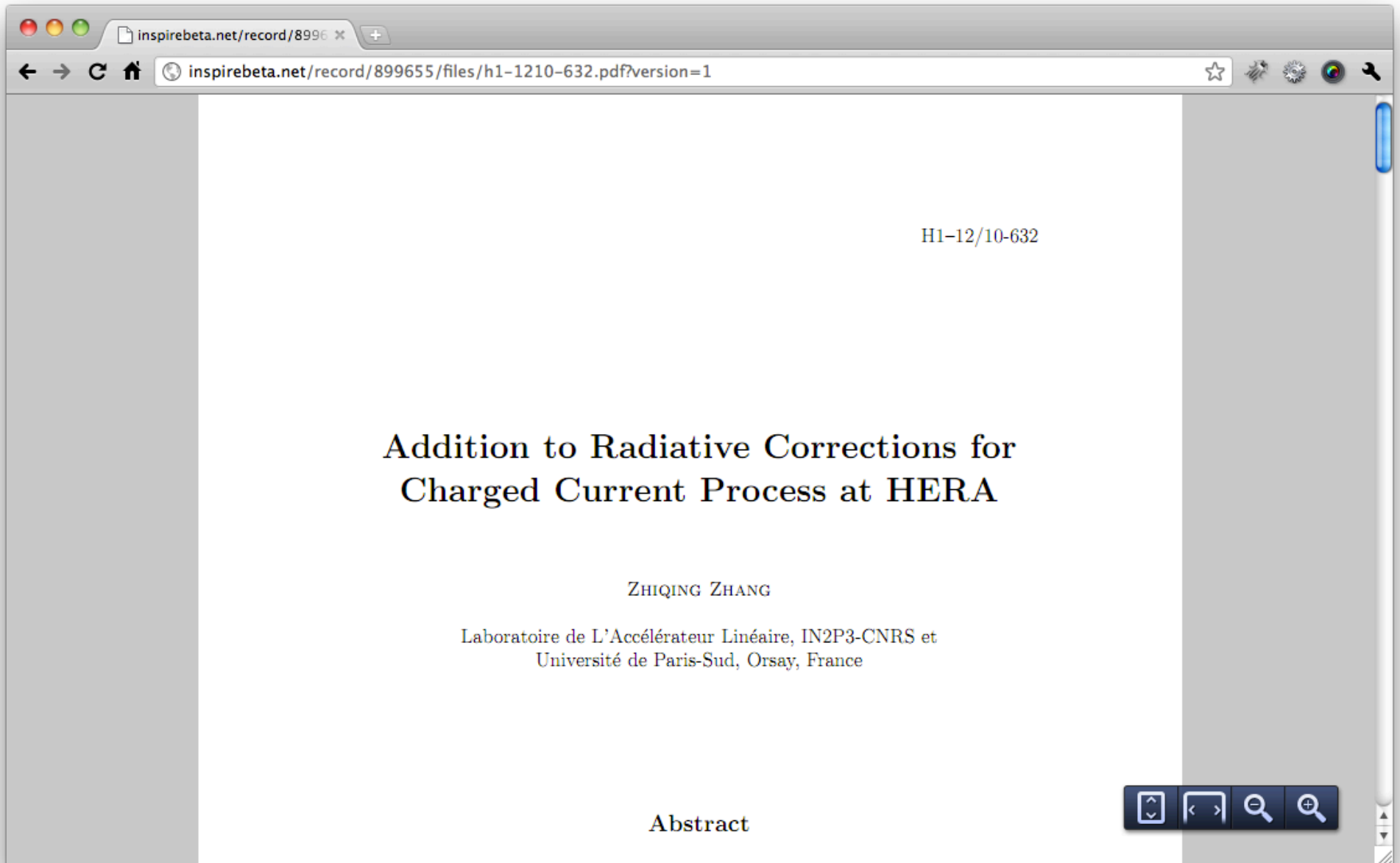


Addition to Radiative Corrections for Charged Current Process at HERA - H1 Collaboration (Zhiqing Zhang for the collaboration) . H1-IN-632

file(s):

- 📄 h1-1210-632
- version 1 [h1-1210-632.pdf](#) [75.18 KB] 16 May 2011, 16:09

[Similar records](#)



H1-12/10-632

Addition to Radiative Corrections for Charged Current Process at HERA

ZHIQING ZHANG

Laboratoire de L'Accélérateur Linéaire, IN2P3-CNRS et
Université de Paris-Sud, Orsay, France

Abstract

Extend example to reality

- INSPIRE is a community service run at the labs
- We are ready to build on this example:
 - CERN – Working with LHC
 - DESY – Working with HI
 - Fermilab – Ready
 - SLAC – Ready

INSPIRE for internal notes

- Independent and trusted third-party service
 - Global collaboration of large HEP institutions
- Long-term preservation oriented repository
- Enhanced information added
 - Fulltext searchable
 - Plot Extraction

Long-Term Access

- Can make notes available to specific sets of people
 - Work with collaborations to determine access strategy
- Already have simple collaboration accounts
- With more development:
 - Dynamic rights
 - Not a simple list, or single account
 - Evolution of rights with collaboration membership
 - EC project at CERN – APARSEN

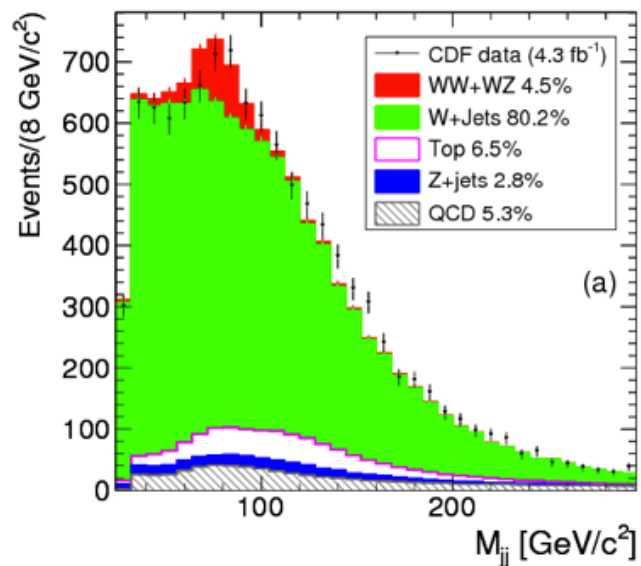
INSPIRE & Data Preservation

- What is INSPIRE?
- Current Capabilities
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- DPHEP Level 2 - For the future

DPHEP Levels of preservation

Preservation Model	Use case
1. Provide additional documentation	Publication-related information search
2. Preserve the data in a simplified format	Outreach, simple training analyses
3. Preserve the analysis software and data format	Full scientific analysis based on existing reconstruction
4. Preserve the reconstruction and simulation software and basic level data	Full potential of the experimental data

Invariant Mass Distribution of Jet Pairs Produced in Association with a W boson in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV - CDF Collaboration (Aaltonen, T. et al.) Phys.Rev.Lett. 106 (2011) 171801 . arXiv:1104.0699 [hep-ex] . FERMILAB-PUB-11-164-E



The dijet invariant mass distribution. The sum of electron and muon events is plotted. In the left plots we show the fits for known processes only (a) and with the addition of a hypothetical Gaussian component (c). On the right plots we show, by subtraction, only the resonant contribution to M_{jj} including WW and WZ production (b) and the hypothesized narrow Gaussian contribution (d). In plot (b) and (d) data points differ because the normalization of the background changes between the two fits. The band in the subtracted plots represents the sum of all background shape systematic uncertainties described in the text. The distributions are shown with a 8 GeV/c^2 binning while the actual fit is performed using a 4 GeV/c^2 bin size.

The dijet invariant mass distribution

Observation of Long-Range | x

inspirebeta.net/record/870473/files/

Observation of Long-Range Near-Side Angular Correlations in Proton-Proton Collisions at the LHC - CMS Collaboration (Khachatryan, Vardan *et al.*) JHEP 1009 (2010) 091 . arXiv:1009.4122 [hep-ex] . CMS-QCD-10-002, CERN-PH-EP-2010-031

JHEP file(s):

JHEP-1009-2010-091

version 1 [JHEP-1009-2010-091.pdf](#) [781.98 KB] 02 Dec 2010, 16:17

Supplementary Material file(s):

CMS-QCD-10-002

version 1 [CMS-QCD-10-002.mat.txt](#) [9.07 KB] 01 Dec 2010, 18:57 *Additional data-tables for the figures.*

arXiv file(s):

arXiv:1009.4122

version 1 [arXiv:1009.4122.pdf](#) [787.15 KB] 02 Dec 2010, 15:27

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Data Tables

Figure 5a for 900 GeV (data not included in the published figure)

Errors shown are systematic and statistical errors added linearly.

Eta = 0.1

pt	value	error
0.15	5.51	0.48
0.25	6.25	0.54
0.35	5.15	0.44
0.45	3.89	0.34
0.55	2.91	0.26
0.65	2.25	0.20
0.75	1.65	0.15
0.85	1.23	0.11
0.95	0.95	0.09
1.1	0.64	0.06
1.3	0.37	0.03
1.5	0.22	0.02
1.7	0.13	0.01
1.9	0.09	0.01

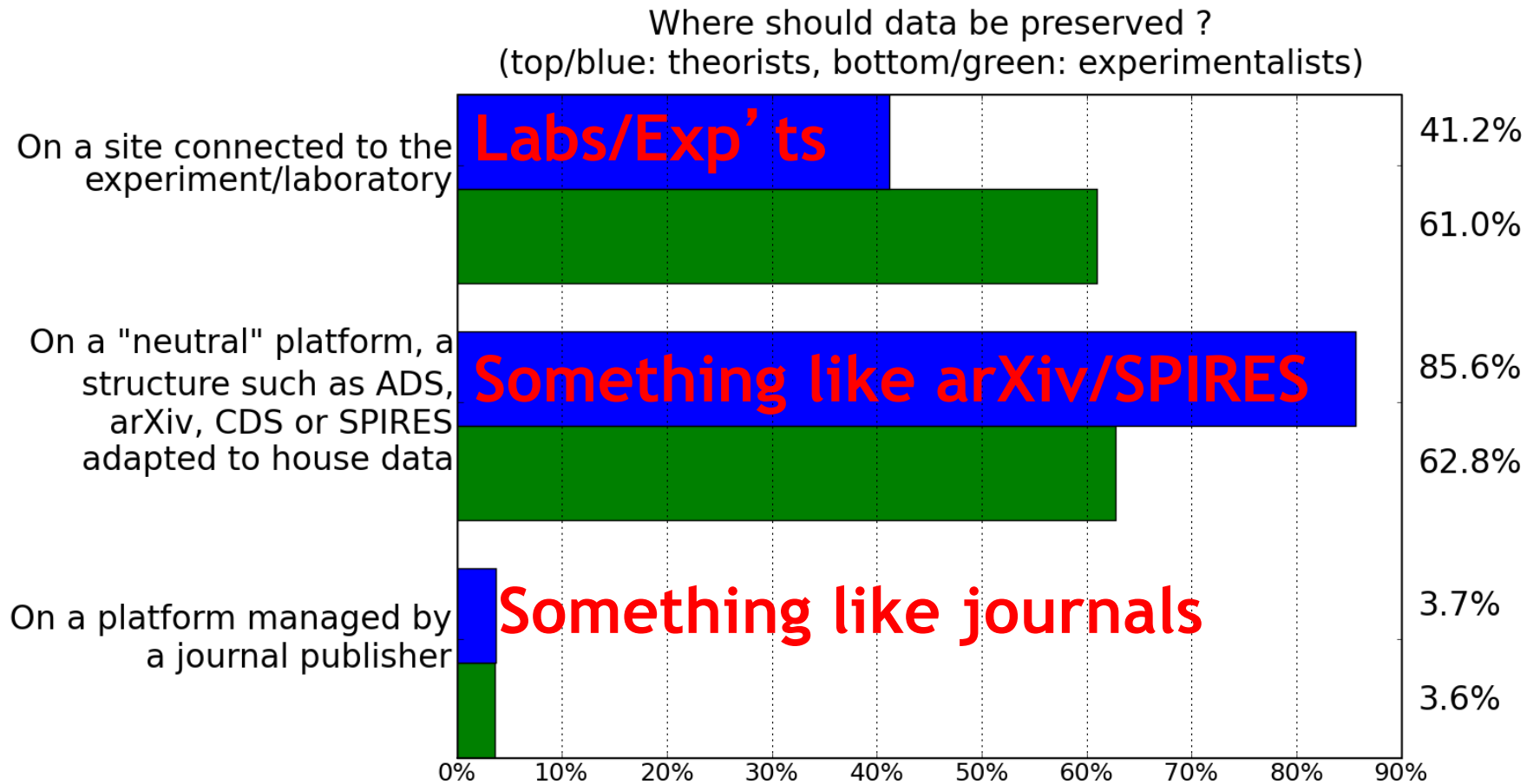
Eta = 0.3

pt	value	error
0.15	5.47	0.48
0.25	6.39	0.55
0.35	5.29	0.46

Needs for high-level data storage

- Challenges
 - Persistent storage of non-text objects
 - Long-term access control
 - Framework to store metadata about data
- Opportunities
 - Discoverability via the published record
 - Make objects (other than articles) citeable
 - Trustworthy and independent repository

And store it somewhere like SPIRES...



Needs for high-level data storage

- Challenges

- Persistent storage of non-text objects *on the way*
- Long-term access control *coming next*
- Framework for metadata about data *coming next*

- Opportunities

- Discoverability via the published record *almost done*
- Make objects (other than articles) citeable *on the way*
- Trustworthy and independent repository ...

INSPIRE and Level 2 Data

- INSPIRE now has the know-how and the tools to take on the challenge of level 2 data

To Sum Up

DPHEP@INSPIRE

- What have we done?
 - Rebuilt a HEP information system on a stable technical foundation
 - Engaged a global collaboration of HEP labs to provide HEP information infrastructure
 - Built a foundation that can be extended to provide new services to HEP community

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- What are we doing?
 - Storing plots/figures as separate searchable objects
 - Storing material like notes and theses that aren't on arXiv or journals
 - Storing internal notes with access control

DPHEP@INSPIRE

- What can we do?
 - Can build out infrastructure for accounts and long-term access control via collaborations
 - Can connect data to the published record via direct links and citation
 - Can preserve high-level data in similar manner to plots, figures, and internal notes

DPHEP@INSPIRE

- INSPIRE is already providing initial services for DPHEP needs
- Several future opportunities for both level 1 and level 2 DPHEP needs
 - Require resources and energy