

INSPIRE and “data”

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for the INSPIRE collaboration

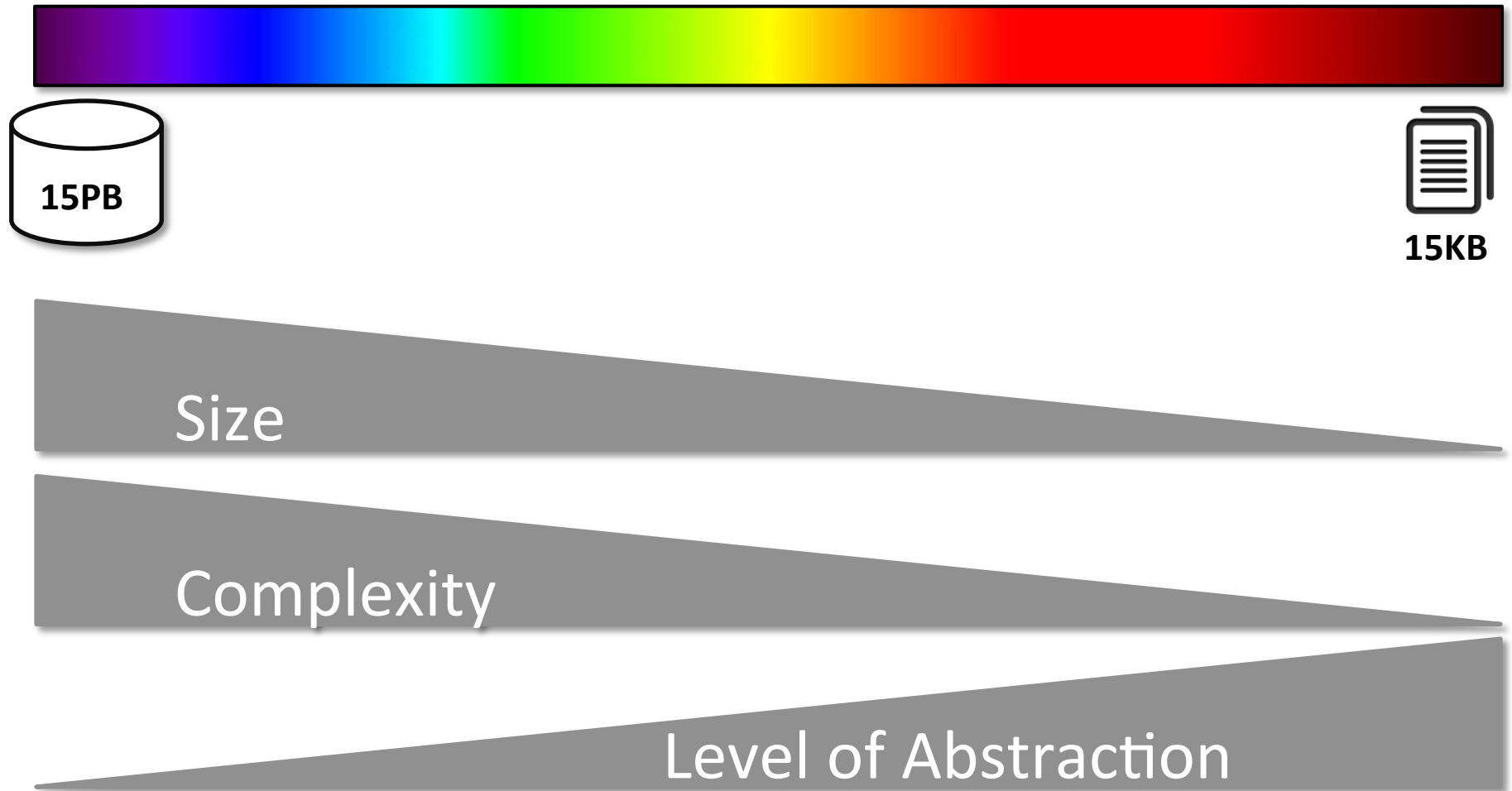
sunje.dallmeier-tiessen@cern.ch





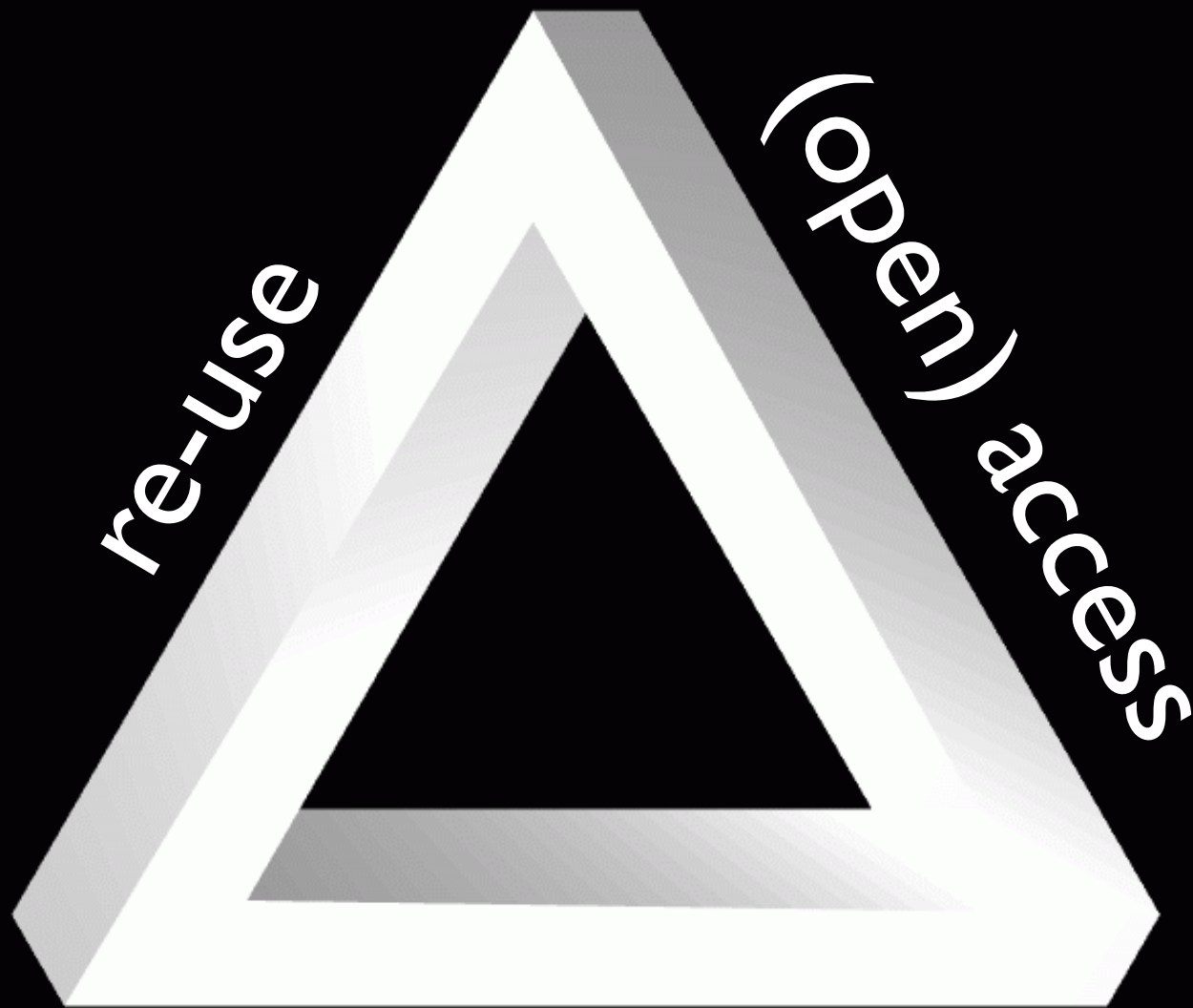
INSPIRE: More than publications....

Spectrum of Research Data in HEP



DPHEP tiers

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



re-use

(open) access

preservation

Trustworthy “data” workflows with INSPIRE



Data generation

Data processing

Data submission (e.g. via HEPData)

“Data” DOI

“Data” reuse

“Data” citation



Information

References (55)

Citations (204)

Files

Plots

HepData

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.*) [Show all 3024 authors.](#)

Sep 2011 - 9 pages

Phys.Lett. B710 (2012) 67-85

DOI: [10.1016/j.physletb.2012.02.051](https://doi.org/10.1016/j.physletb.2012.02.051)

CERN-PH-EP-2011-145

e-Print: [arXiv:1109.6572](https://arxiv.org/abs/1109.6572) [hep-ex] | [PDF](#)

Experiment: [CERN-LHC-ATLAS](#)

Abstract: A search for squarks and gluinos in events containing jets, missing transverse momentum and no electrons or muons is presented. The data were recorded in 2011 by the ATLAS experiment in $\sqrt{s} = 7$ TeV proton-proton collisions at the Large Hadron Collider. No excess above the Standard Model background expectation is observed in 1.04 fb^{-1} of data. Gluino and squark masses below 700 GeV and 875 GeV respectively are excluded at the 95% confidence level in simplified models containing only squarks of the first two generations, a gluino octet and a massless neutralino. The exclusion limit increases to 1075 GeV for squarks and gluinos of equal mass. In MSUGRA/CMSSM models with $\tan(\beta)=10$, $A_0=0$ and $\mu > 0$, squarks and gluinos of equal mass are excluded for masses below 950 GeV. These limits extend the region of supersymmetric parameter space excluded by previous measurements.

Note: 9 pages plus author list (20 pages total), 2 figures, 3 tables, matches published version in Physics Letters B

HEPData on INSPIRE

Information References Citations Files Plots HepData

[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 (Aad, Georges *et al.*) Phys.Lett. B710 (2012) 67-85 arXiv:1109.6572 [hep-ex] CERN-PH-EP-2011-145

THIS DATA COMES FROM THE DURHAM HEPDATA PROJECT

SUMMARY:

Comments: The distribution in M_{eff} (scalar sum of the missing transverse momentum and the transverse momenta of the two highest p_T jets) for events with at least 2 jets after the application of all selection criteria (other than the M_{eff} cut itself). The table shows the number of observed data points per 100 GeV bin plus the background prediction of the Standard-Model Monte-Carlo and its upper and lower 1-sigma error limits uncertainty band..

[Go to the record](#)

Plain	↑↑↑Plots↑↑
$ET_{MM} > 130 \text{ GeV}$	
$M_{EFFECTIVE} > 1000 \text{ GeV}$	
$p_{Tjet} > 40 \text{ GeV}$	
$p_{TLEADING jet} > 130 \text{ GeV}$	
$pp \rightarrow 0l \geq 2JETS MM$	
$\sqrt{s} = 7000.0 \text{ GeV}$	
$= dATA = BACKGROUND$	
$ET_{MM}/M_{EFFECTIVE} = 0.3$	
$M_{EFF} (\text{GeV})$	$N/100 \text{ GeV}$

Demanded by community:

Make data
citable

[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](#) - [Aad, Georges](#) *et al*

doi:10.7483/inspirehep.data.123.456

Extra resource relating to the paper arxiv:1109.6572

Experimental acceptance/efficiency and excluded cross section*branching ratios:

[Signal expectations and experimental acceptance/efficiency for \$M_{\text{gluino}}\$ vs \$M_{\text{squark}}\$ grid \(massless LSP\)](#) , doi:10.7483/inspirehep.data.Z12.345

[Signal expectations and experimental acceptance/efficiency for CMSSM/MSUGRA grid](#) , doi:10.7483/inspirehep.data.543.21X

SLHA files:

[susy sqgl slha files](#), doi:10.7483/inspire-hep.data.432-1MN

[susy CMSSM/MSUGRA slha files](#) , doi:10.7483/inspirehep.data.432.1BA

References

- [1] J. Bagger and N. Lambert, *Modeling multiple M2's*, *Phys. Rev. D* **75** (2007) 045020 [[hep-th/0611108](#)] [[INSPIRE](#)].
- [2] J. Bagger and N. Lambert, *Gauge symmetry and supersymmetry of multiple M2-branes*, *Phys. Rev. D* **77** (2008) 065008 [[arXiv:0711.0955](#)] [[INSPIRE](#)].
- [3] A. Gustavsson, *Algebraic structures on parallel M2-branes*, *Nucl. Phys. B* **811** (2009) 66 [[arXiv:0709.1260](#)] [[INSPIRE](#)].
- [4] O. Aharony, O. Bergman, D.L. Jafferis and J. Maldacena, *$N = 6$ superconformal Chern-Simons-matter theories, M2-branes and their gravity duals*, *JHEP* **10** (2008) 091 [[arXiv:0806.1218](#)] [[INSPIRE](#)].
- [5] O. Aharony, O. Bergman and D.L. Jafferis, *Fractional M2-branes*, *JHEP* **11** (2008) 043 [[arXiv:0807.4924](#)] [[INSPIRE](#)].
- [6] O. Aharony, M. Berkooz and N. Seiberg, *Light cone description of (2,0) superconformal theories in six-dimensions*, *Adv. Theor. Math. Phys.* **2** (1998) 119 [[hep-th/9712117](#)] [[INSPIRE](#)].
- [7] G. Aad 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* (2011), [[ARXIV:1109.6572](#)] [[INSPIRE](#)]
- [8] G. Aad et al. Data from: *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* (2011), doi:10.1234/inspirehep.data.123.456

Information

References (55)

Citations(9)

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Plots

HEP Data

[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](#) - [Aad, Georges](#) *et al*

Paper (arXiv:1109.6572) **cited by: 7 records**

[more](#)

Datasets (doi:10.7483/inspire-hep.data.123.456) **cited by: 2 records**

[more](#)

exp: atlas

Citesummary

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Renowned papers (500+)

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Famous papers (250-499)

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0

Very well-known papers (100-249)

0

0

Well-known papers (50-99)

0

0

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12

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3

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Published datasets

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ODIN

ORCID and DataCite Interoperability Network

2-year, EC funded project
with ORCID, DataCite,
ANDS, arXiv, British Library, Dryad, CERN

Summary

- Unequivocally identify data
- Making data citable via DOIs for individual datasets
- Enabling persistent connections within INSPIRE and to other databases
- Data citation