

# **Veröffentlichungen am DESY**

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# Veröffentlichungen Teilchenphysik

## H1

### Veröffentlichungen

H. Abramowicz et al.

#### **Combination and QCD analysis of charm production cross section measurements in deep-inelastic ep scattering at HERA.**

*The European physical journal / C*, 73:2311, and  
PHPPUBDB-26530, DESY-12-172; arXiv:1211.1182.  
<http://dx.doi.org/10.1140/epjc/s10052-013-2311-3>

C. Alexa et al.

#### **Measurement of Charged Particle Spectra in Deep-Inelastic ep Scattering at HERA.**

*The European physical journal / C*, C73(4):2406, and  
DESY-2013-00234, DESY 13-012.  
<http://dx.doi.org/10.1140/epjc/s10052-013-2406-x>

C. Alexa et al.

#### **Elastic and Proton-Dissociative Photoproduction of $J/\psi$ Mesons at HERA; 1st ed.**

*The European physical journal / C*, 73(6):2466, and  
DESY-2013-00874, DESY-13-058.  
<http://dx.doi.org/10.1140/epjc/s10052-013-2466-y>

P. Belov.

#### **Proton Structure and PDFs from HERA**

*Acta physica Polonica / B / Proceedings supplement*,  
volume 6 of *Acta physica Polonica / B / Proceedings supplement*, page 655, Cracow, 09/16/2012 - 09/21/2012  
2013. 42. International Symposium on Multiparticle Dynamics,  
Kielce(Poland), Inst. of Physics, Jagellonian Univ.  
<http://dx.doi.org/DOI:10.5506/APhysPolBSupp.6.655>

J.-E. Olsson.

#### **Combined Inclusive Diffractive Cross Sections Measured with Forward Proton Spectrometers in ep DIS at HERA.**

*Proceedings of Science*, Proceedings of Science, page 090,  
Trieste, 04/22/2013 - 04/26/2013 2013. XXI International  
Workshop on Deep-Inelastic Scattering and Related Subjects,  
Marseille(France), SISSA.

S. Shushkevich.

#### **Inclusive Deep Inelastic Scattering at High $Q^2$ with Longitudinally Polarised Lepton Beams at HERA and Determination of the Integrated Luminosity at HERA using Elastic QED Compton Events.**

*Proceedings of Science*, Proceedings of Science, page 37,  
Trieste, 04/22/2013 - 04/26/2013 2013. 21st International  
Workshop on Deep-Inelastic Scattering and Related Subjects,  
Marseille(France), SISSA.

K. Wichmann.

#### **Deep inelastic scattering at HERA.**

*Acta physica Polonica / B*, volume 6, pages 709–714, Cracow,  
09/17/2012 - 09/21/2012 2013. International Symposium on  
Multiparticle Dynamics, Kielce(Poland), Inst. of Physics,  
Jagellonian Univ.  
<http://dx.doi.org/10.5506/APhysPolBSupp.6.709>

### Dissertationen

P. Belov.

#### **Combination of the H1 and ZEUS Inclusive Cross-Section Measurements at Proton Beam Energies of 460 and 575 GeV and Tests of Low Bjorken-x Phenomenological Models.**

University of Hamburg, Hamburg, 2013.

D. Britzger.

#### **Regularized Unfolding of Jet Cross Sections in Deep-Inelastic ep Scattering at HERA and Determination of the Strong Coupling Constant.**

Universität Hamburg, Hamburg, 2013.

A. Dossanov.

#### **High Transverse Momentum Dijet Cross Section Measurements in Photoproduction at HERA.**

University of Hamburg, 2013.

F. Huber.

#### **Elastic and Proton Dissociative $J/\psi$ Photoproduction at low $W_{\gamma p}$ with the H1 Detector at HERA.**

Ruperto-Carola Univ. of Heidelberg, 2013.

H. Pirumov.

#### **QCD Analysis of Neutral and Charged Current Cross Sections and Search for Contact Interactions at HERA.**

Univ. Heidelberg, 2013.

## HERMES

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A. Airapetian et al.

#### **Azimuthal distributions of charged hadrons, pions, and kaons produced in deep-inelastic scattering off unpolarized protons and deuterons.**

*Physical review / D*, 87:012010, and PHPPUBDB-25566,  
DESY 12-060; arXiv:1204.4161.

<http://dx.doi.org/10.1103/PhysRevD.87.012010>

A. Airapetian et al.

#### **Multiplicities of charged pions and kaons from semi-inclusive deep-inelastic scattering by the proton and the deuteron.**

*Physical review / D*, 87:074029, and PHPPUBDB-26476,  
DESY 12-157; arXiv:1212.5407.

<http://dx.doi.org/10.1103/PhysRevD.87.074029>

A. Airapetian et al.

#### **The HERMES Recoil Detector.**

*Journal of Instrumentation*, 8(05):49, and DESY-2013-00184,  
arXiv:1302.6092; DESY 13-034.

<http://dx.doi.org/10.1088/1748-0221/8/05/P05012>

Augustyniak, W. and HERMES Collaboration.

#### **Exclusive electroproduction of vector mesons in lepton nucleon scattering at the HERMES experiment.**

*Nuclear physics / B / Proceedings supplements*, volume 245,  
pages 207 – 214, Amsterdam, 06/30/2013 - 07/04/2013  
2013. 7th Joint International Hadron Structure Conference,  
Tatranská Štrba(Slovak Republic), Elsevier.

<http://dx.doi.org/10.1016/j.nuclphysbps.2013.10.041>

Karyan, Gevorg and HERMES Collaboration.

#### **Charged hadron multiplicities at the HERMES experiment.**

In 3rd Workshop on the QCD Structure of the Nucleons - QCD-N'12, *Il nuovo cimento / C*, volume 2013, pages 139–142, [S.I.], 10/22/2012 - 10/26/2012 2013. 3rd Workshop on the QCD Structure of the Nucleons, Bilbao(Spain), Italian Physical Society.  
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Marukyan, Hrachya and HERMES Collaboration.

#### **Exclusive reactions at HERMES.**

In 3rd Workshop on the QCD Structure of the Nucleons - QCD-N'12, *Il nuovo cimento / C*, volume 2013, pages 55–60, [S.I.], 10/22/2012 - 10/26/2012 2013. 3rd Workshop on the QCD Structure of the Nucleons, Bilbao(Spain), Italian Physical Society.  
<http://dx.doi.org/10.1393/ncc/i2013-11586-2>

## Dissertationen

S. J. Joosten.

#### **Fragmentation and nucleon structure in semi-inclusive deep-inelastic scattering at the HERMES experiment.**

University of Illinois at Urbana-Champaign, 2013.

G. A. Karyan.

#### **A study of charged hadron yields and the multidimensional nuclear attenuation effect at the HERMES experiment.**

A.I. Alikhanyan National Science Laboratory, 2013.

## Masterarbeiten

E. Etzelmüller.

#### **Measurement of asymmetries in associated DVCS using the HERMES Recoil detector.**

Justus-Liebig-Universität Gießen, 2013.

M. Stahl.

#### **Analysis of Resonant Structures in the $pK_S^0$ -channel at HERMES.**

Justus-Liebig-Universität Gießen, 2013.

## ZEUS

## Veröffentlichungen

H. Abramowicz et al.

#### **Combination and QCD analysis of charm production cross section measurements in deep-inelastic ep scattering at HERA.**

*The European physical journal / C*, 73:2311, and PHPPUBDB-26530, DESY-12-172; arXiv:1211.1182.  
<http://dx.doi.org/10.1140/epjc/s10052-013-2311-3>

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#### **Production of the excited charm mesons $D_1$ and $D_2^*$ at HERA.**

*Nuclear physics / B*, 866:229–254, and PHPPUBDB-22400, DESY 12-144; arXiv:1208.4468.  
<http://dx.doi.org/10.1016/j.nuclphysb.2012.09.007>

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#### **Production of $Z^0$ bosons in elastic and quasi-elastic ep collisions at HERA.**

*Physics letters / B*, 718:915–921, and PHPPUBDB-24154, DESY 12-168; arXiv 1210.5511.  
<http://dx.doi.org/10.1016/j.physletb.2012.11.051>

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#### **Measurement of Inelastic $J/\psi$ and $\psi'$ Photoproduction at HERA.**

*Journal of high energy physics*, 2013:071, and PHPPUBDB-25948, DESY 12-226; arXiv:1211.6946.  
[http://dx.doi.org/10.1007/JHEP02\(2013\)071](http://dx.doi.org/10.1007/JHEP02(2013)071)

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#### **Measurement of $D^\pm$ production in deep inelastic ep scattering with the ZEUS detector at HERA.**

*Journal of high energy physics*, 2013(5):23, and DESY-2013-00365, DESY 13-028; arXiv: 1302.5058.  
[http://dx.doi.org/10.1007/JHEP05\(2013\)023](http://dx.doi.org/10.1007/JHEP05(2013)023)

H. Abramowicz et al.

#### **Measurement of $D^{*\pm}$ production in deep inelastic scattering at HERA.**

*Journal of high energy physics*, 2013(5):97, and DESY-2013-00366, DESY 13-054; arXiv:1303.6578.  
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#### **Measurement of high- $Q^2$ neutral current deep inelastic $e^+p$ scattering cross sections with a longitudinally polarized positron beam at HERA.**

*Physical review / D*, 87(5):052014, and DESY-2014-00266, DESY 12-145.  
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#### **Measurement of the Luminosity in the ZEUS Experiment at HERA II.**

*Nuclear instruments & methods in physics research*, and DESY-2013-01083, DESY-2013-081; arXiv:1306.1391.  
<http://dx.doi.org/10.1016/j.nima.2014.01.053>

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#### **QCD tests in DIS.**

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A. Gzhko.

#### **HERAFitter - an open source QCD fit framework.**

*Nuclear physics / B / Proceedings supplements*, volume 245, pages 161 – 163, Amsterdam, 06/30/2013 - 07/04/2013 2013. 7th Joint International Hadron Structure'13 Conference, Tatranské Matliare(Slovakia), Elsevier.  
<http://dx.doi.org/10.1016/j.nuclphysbps.2013.10.031>

A. Iudin.

#### **Isolated photon production at HERA.**

*Proceedings of Science*, volume 008, Trieste, 05/20/2013 - 05/24/2013 2013. Photon 2013, Paris(France), SISSA.

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#### **Measurement of isolated photons with and without accompanying jets at HERA.**

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- R. Klanner, E. Fretwurst, I. Pintilie, J. Schwandt, and J. Zhang.  
**Study of high-dose X-ray radiation damage of silicon sensors.**  
*Nuclear instruments & methods in physics research / A*, 732:117 – 121, and DESY-2014-01975.  
<http://dx.doi.org/10.1016/j.nima.2013.05.131>
- H. Kowalski, L. N. Lipatov, and D. A. Ross.  
**BFKL Evolution as a Communicator Between Small and Large Energy Scales.**  
*Physics of particles and nuclei*, 44(3):547 – 567, and DESY-2014-01652.  
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- A. V. Lipatov.  
**Isolated prompt photon pair production at hadron colliders with kt-factorization.**  
*Journal of high energy physics*, 2013:009, and PHPPUBDB-26277, DESY 12-169; arXiv:1210.0823.  
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- M. Lisovyi.  
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In *Proceedings of 5th Workshop on Excited QCD 2013, Acta physica Polonica / B*, volume 6, pages 815–820, Cracow, 02/03/2013 - 02/09/2013 2013. 5th Workshop on Excited QCD 2013, Sarajevo(Bosnia-Herzegovina), Inst. of Physics, Jagellonian Univ.  
<http://dx.doi.org/10.5506/APhysPolBSupp.6.815>
- B. Loehr.  
**Results from ZEUS at HERA.**  
*Proceedings of Science*, Trieste, 06/23/2013 - 06/30/2013 2013. The XXI International Workshop High Energy Physics and Quan tum Field Theory, Saint Petersburg Area(Russia), SISSA.
- T. Poehlszen et al.  
**Study of the accumulation layer and charge losses at the Si-SiO<sub>2</sub> interface in p+n-silicon strip sensors.**  
*Nuclear instruments & methods in physics research / A*, 721:26 – 34, and DESY-2014-01946.  
<http://dx.doi.org/10.1016/j.nima.2013.04.026>
- A. Verbytskyi.  
**Production of the excited charm mesons D<sub>1</sub> and D<sub>2</sub><sup>\*</sup> at Hera.**  
*Proceedings of Science*, volume POS (DIS 2013) 290, Trieste, 04/22/2013 - 04/26/2013 2013. XXI International Workshop on Deep-Inelastic Scattering and Related Subjects, Marseille(France), SISSA.
- K. Wichmann.  
**Deep inelastic scattering at HERA.**  
*Acta physica Polonica / B*, volume 6, pages 709–714, Cracow, 09/17/2012 - 09/21/2012 2013. International Symposium on Multiparticle Dynamics, Kielce(Poland), Inst. of Physics, Jagellonian Univ.  
<http://dx.doi.org/10.5506/APhysPolBSupp.6.709>

- O. Zenaiev.  
**Measurement of D<sup>+</sup> production in Deep Inelastic epScattering with the ZEUS detector at HERA.**  
*Proceedings of Science*, volume PoS (DIS 2013) 299, Trieste, 04/22/2013 - 04/26/2013 2013. XXI International Workshop on Deep-Inelastic Scattering and Related Subjects, Marseille(France), SISSA.

## Dissertationen

- V. Libov.  
**Measurement of Charm and Beauty Production in Deep Inelastic Scattering at HERA and Test Beam Studies of ATLAS Pixel Sensors.**  
Hamburg University, Hamburg, 2013.
- A. Verbytskyi.  
**Production of the Excited Charm Mesons D<sub>1</sub> and D<sub>2</sub><sup>\*</sup> at HERA.**  
University of Hamburg, 2013.

## ATLAS

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- G. Aad et al.  
**ATLAS search for new phenomena in dijet mass and angular distributions using pp collisions at  $\sqrt{s} = 7$  TeV.**  
*Journal of high energy physics*, 2013:29, and DESY-2013-00468, CERN-PH-EP-2012-257; arXiv:1210.1718.  
[http://dx.doi.org/10.1007/JHEP01\(2013\)029](http://dx.doi.org/10.1007/JHEP01(2013)029)
- G. Aad et al.  
**Improved luminosity determination in pp collisions at  $\sqrt{s} = 7$  TeV using the ATLAS detector at the LHC.**  
*The European physical journal / C*, 73(8):2518, and DESY-2013-00814, CERN-PH-EP-2013-026.  
<http://dx.doi.org/10.1140/epjc/s10052-013-2518-3>
- G. Aad et al.  
**Jet energy measurement with the ATLAS detector in proton-proton collisions at  $\sqrt{s} = 7$  TeV.**  
*The European physical journal / C*, 73:2304, and DESY-2013-00701, CERN-PH-EP-2011-191.  
<http://dx.doi.org/10.1140/epjc/s10052-013-2304-2>
- G. Aad et al.  
**Jet energy resolution in proton-proton collisions at  $\sqrt{s} = 7$  TeV recorded in 2010 with the ATLAS detector.**  
*The European physical journal / C*, 73(3):2306, and DESY-2013-00445, CERN-PH-EP-2012-191.  
<http://dx.doi.org/10.1140/epjc/s10052-013-2306-0>
- G. Aad et al.  
**Measurement of angular correlations in Drell-Yan lepton pairs to probe Z/ $\gamma^*$  boson transverse momentum at  $\sqrt{s} = 7$  TeV with the ATLAS detector.**  
*Physics letters / B*, 720(1-3):32 – 51, and DESY-2013-00451, CERN-PH-EP-2012-325.  
<http://dx.doi.org/10.1016/j.physletb.2013.01.054>

- G. Aad et al.  
**Measurement of hard double-parton interactions in  $W(\rightarrow \ell\nu)$  + 2-jet events at  $\sqrt{s} = 7$  TeV with the ATLAS detector.**  
*New journal of physics*, 15(3):033038, and DESY-2013-00418, CERN-PH-EP-2012-355.  
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- G. Aad et al.  
**Measurement of isolated-photon pair production in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector.**  
*Journal of high energy physics*, 2013(1):86, and DESY-2013-00435, CERN-PH-EP-2012-300.  
[http://dx.doi.org/10.1007/JHEP01\(2013\)086](http://dx.doi.org/10.1007/JHEP01(2013)086)
- G. Aad et al.  
**Measurement of  $\kappa_T$  splitting scales in  $W \rightarrow \ell\nu$  events at  $\sqrt{s} = 7$  TeV with the ATLAS detector.**  
*The European physical journal / C*, 73(5):2432, and DESY-2013-00412, CERN-PH-EP-2013-003.  
<http://dx.doi.org/10.1140/epjc/s10052-013-2432-8>
- G. Aad et al.  
**Measurement of  $Z$  Boson Production in Pb-Pb Collisions at  $\sqrt{s_{NN}} = 2.76$ TeV with the ATLAS Detector.**  
*Physical review letters*, 110(2):022301, and DESY-2013-00444, CERN-PH-EP-2012-223.  
<http://dx.doi.org/10.1103/PhysRevLett.110.022301>
- G. Aad et al.  
**Measurement of  $ZZ$  production in  $pp$  collisions at  $\sqrt{s} = 7$  TeV and limits on anomalous  $ZZZ$  and  $ZZ\gamma$  couplings with the ATLAS detector.**  
*Journal of high energy physics*, 2013(3):128, and DESY-2013-00427, CERN-PH-EP-2012-318.  
[http://dx.doi.org/10.1007/JHEP03\(2013\)128](http://dx.doi.org/10.1007/JHEP03(2013)128)
- G. Aad et al.  
**Measurement of jet shapes in top-quark pair events at  $\sqrt{s} = 7$  TeV using the ATLAS detector.**  
*The European physical journal / C*, 73(12):2676, and DESY-2014-00164, CERN-PH-EP-2013-067.  
<http://dx.doi.org/10.1140/epjc/s10052-013-2676-3>
- G. Aad et al.  
**Measurement of the Azimuthal Angle Dependence of Inclusive Jet Yields in Pb+Pb Collisions at  $\sqrt{s_{NN}} = 2.76$ TeV with the ATLAS Detector.**  
*Physical review letters*, 111(15):152301, and DESY-2014-00070.  
<http://dx.doi.org/10.1103/PhysRevLett.111.152301>
- G. Aad et al.  
**Measurement of the cross-section for  $W$  boson production in association with  $b$ -jets in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector.**  
*Journal of high energy physics*, 2013(6):84, and DESY-2013-00411, CERN-PH-EP-2012-357.  
[http://dx.doi.org/10.1007/JHEP06\(2013\)084](http://dx.doi.org/10.1007/JHEP06(2013)084)
- G. Aad et al.  
**Measurement of the differential cross-section of  $B^+$  meson production in  $pp$  collisions at  $\sqrt{s} = 7$  TeV at ATLAS.**  
*Journal of high energy physics*, 2013:42, and DESY-2013-01518, CERN-PH-EP-2013-089; arXiv:1307.0126v2.  
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- G. Aad et al.  
**Measurement of the distributions of event-by-event flow harmonics in lead-lead collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector at the LHC.**  
*Journal of high energy physics*, 2013:183, and DESY-2014-00085, CERN-PH-EP-2013-04.  
[http://dx.doi.org/10.1007/JHEP11\(2013\)183](http://dx.doi.org/10.1007/JHEP11(2013)183)
- G. Aad et al.  
**Measurement of the flavour composition of dijet events in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS Detector.**  
*The European physical journal / C*, 73:2301, and DESY-2013-00677, CERN-PH-EP-2012-255.  
<http://dx.doi.org/10.1140/epjc/s10052-013-2301-5>
- G. Aad et al.  
**Measurement of the inclusive jet cross-section in  $pp$  collisions at  $\sqrt{s} = 2.76$  TeV and comparison to the inclusive jet cross-section at  $\sqrt{s} = 7$  TeV using the ATLAS detector.**  
*The European physical journal / C*, 73:2509, and DESY-2013-00594, CERN-PH-EP-2013-036.  
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- G. Aad et al.  
**Measurement of the  $t\bar{t}$  production cross section in the tau + jets channel using the ATLAS detector.**  
*The European physical journal / C*, 73(3):2328, and DESY-2013-00425, CERN-PH-EP-2012-328.  
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**Measurement of the jet radius and transverse momentum dependence of inclusive jet suppression in lead-lead collisions at  $\sqrt{s_{NN}} = 2.76$  TeV with the ATLAS detector.**  
*Physics letters / B*, 719(4-5):220 – 241, and DESY-2013-00686, CERN-PH-EP-2012-134.  
<http://dx.doi.org/10.1016/j.physletb.2013.01.024>
- G. Aad et al.  
**Measurement of the  $\Lambda_b^0$  lifetime and mass in the ATLAS experiment.**  
*Physical review / D*, 87(3):032002, and DESY-2013-00699, CERN-PH-EP-2012-163.  
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- G. Aad et al.  
**Measurement of the production cross section of jets in association with a  $Z$  boson in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector.**  
*Journal of high energy physics*, 2013(7):32, and DESY-2013-00397, CERN-PH-EP-2013-023.  
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- G. Aad et al.  
**Measurement of the top quark charge in  $pp$  collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector.**  
*Journal of high energy physics*, 2013:31, and DESY-2014-00081, CERN-PH-EP-2013-056.  
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- G. Aad et al.  
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**Measurement of Upsilon production in 7 TeV  $pp$  collisions at ATLAS.**  
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**Measurement of  $W^+W^-$  production in  $pp$  collisions at  $\sqrt{s} = 7\text{TeV}$  with the ATLAS detector and limits on anomalous  $WWZ$  and  $WW\gamma$  couplings.**  
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- G. Aad et al.  
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*Physical review / D*, 87(11):112003, and DESY-2013-00413, CERN-PH-EP-2012-345.  
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