Open Platform for Public Access Policy and Data Sharing:

The Experience of the U.S. Department of Energy

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U.S. DEPARTMENT OF ENERGY | Office of Science

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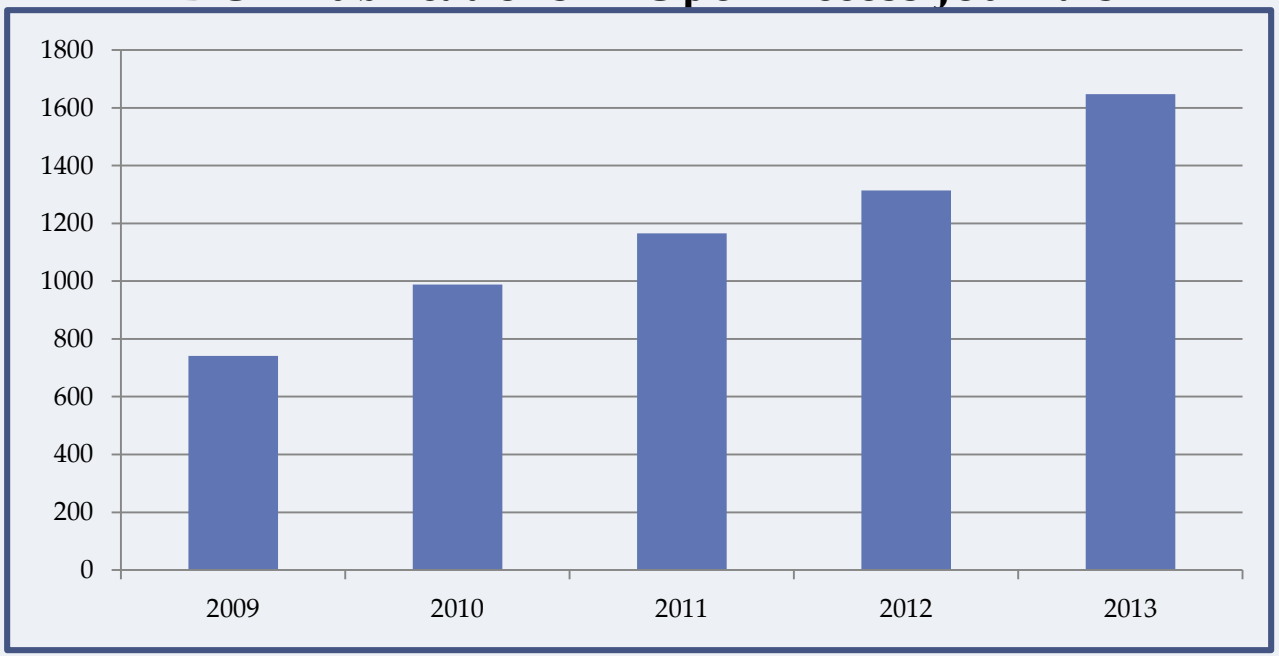
Outline

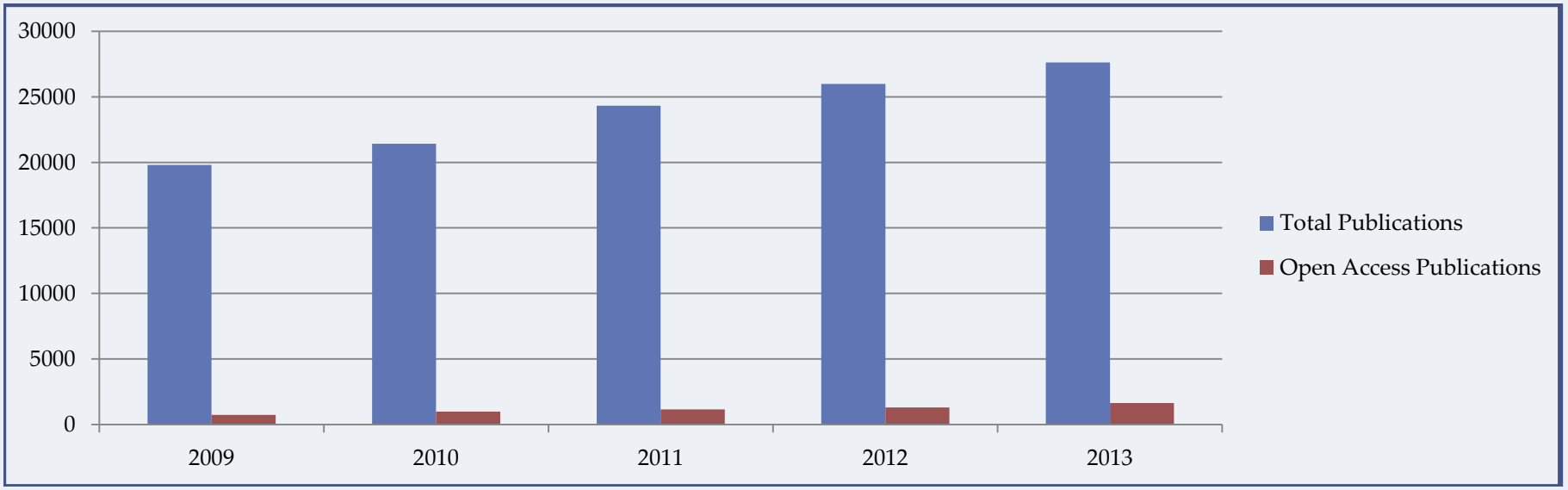
- Why public access?
- Some open access data
- Direction of public access policy in the U.S.
- The Department of Energy's Public Access Plan

Why Public Access?

- Sharing knowledge accelerates discovery.
- The Department of Energy looks to science and technology to address energy challenges.
- We need to accelerate discovery in this arena.
- We have an obligation to the taxpayers to ensure that they have access to what their investment has produced.

DOE Publications in Open Access Journals





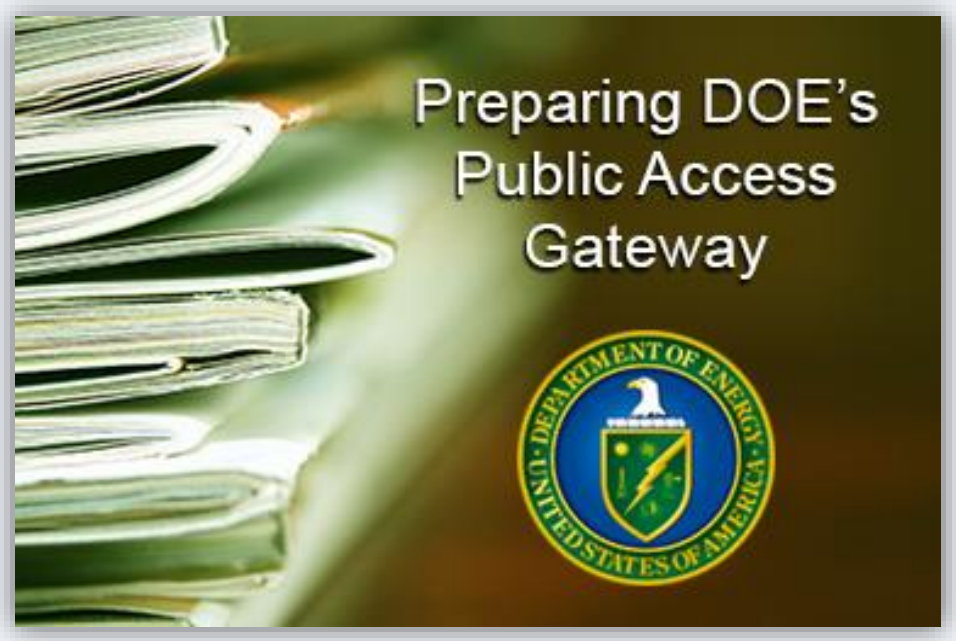
Direction of Public Access Policy in the United States

- National Institutes of Health (NIH) Mandate (2008)
- Legislation
- The White House Office of Science and Technology Policy (OSTP) Directive – February 22, 2013

Office of Science and Technology Policy Requirement

- February 2013

- Agencies with over $100M in annual R&D must develop a public access plan for both scholarly publications and digital research data.
- For publications, agencies should:
  - Provide for free public access within 12 months of publication (or tailor embargo period as appropriate)
  - Allow for reading, downloading, analyzing
  - Prevent unauthorized mass redistribution
  - Encourage private-public collaboration
  - Ensure long-term preservation
- For data, agencies should:
  - Maximize access while using a cost-benefit approach
  - Ensure that researchers develop data management plans
  - Encourage cooperation with private sector



Let us look at the DOE public access plan…

The DOE Public Access Model: Public Access Gateway for Energy and Science (PAGES)

Features:

- Centralized metadata
- Decentralized full-text articles and manuscripts, using DOE/institutional and publisher repositories
- Introduced in "beta" form:
  - Beta version consists of initial collection of DOE accepted manuscripts and publisher content (~6,500 records).
  - Anticipate 25,000-30,000 manuscripts/articles per year after embargo period.

The DOE Public Access Model: Public Access Gateway for Energy and Science (PAGES)

Features (cont'd):

- Long-term free access by the public to the "best available version" of peer-reviewed scholarly publications sponsored by DOE.

DOE Ingest Stream (E-Link)

Collaboration with publishers via CHORUS and CrossRef

Best Available Version

We are collaborating with publishers to take advantage of their public access offerings.

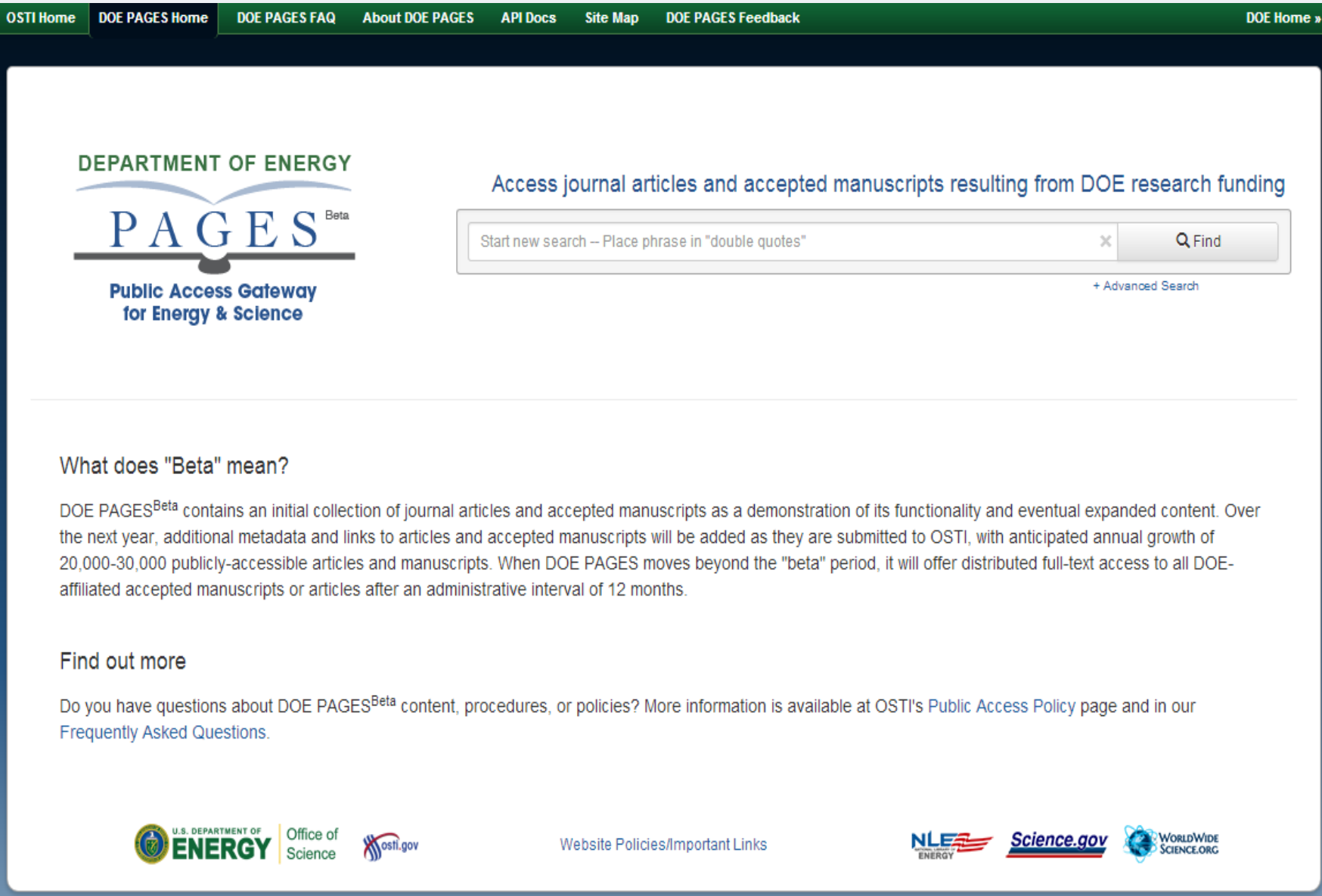
*CHORUS is the Clearinghouse for the Open Research of the United States – a publisher consortium.

The DOE Public Access Model: Public Access Gateway for Energy and Science (PAGES)

Features (cont'd):

- A dark archive to ensure long-term preservation and access.
- "Live" access will link to distributed articles and manuscripts at publisher sites and DOE institutional repositories.
- Dark archive serves as a "backup" if any link or access is broken or discontinued.
- 12-month administrative interval or embargo period, with established mechanisms for stakeholders to petition for changing the interval.

PAGES^{Beta} Released August 4, 2014



Two Pathways of PAGES search

Path 1 – From query to accepted manuscripts

1) Search query

2) Citation page

Top quark mass measurement using the template method at CDF

Citation Details

We present a measurement of the top **quark** mass in the lepton+jets and dilepton channels of $t\bar{t}$ decays using the template method. The data sample corresponds to an integrated luminosity of 5.6 fb^{-1} of $p\bar{p}$ collisions at Tevatron with $\sqrt{s}$ = 1.96 TeV, collected with the CDF II detector. The measurement is performed by constructing templates of three kinematic variables in the lepton+jets and two kinematic variables in the dilepton channel. The variables are two reconstructed top **quark** masses from different jets-to-**quark**s combinations and the invariant mass of two jets from the W decay in the lepton+jets channel, and a reconstructed top **quark** mass and m_{T2}, a variable related to the transverse mass in events with two missing particles, in the dilepton channel. The simultaneous fit of the templates from signal and background events in the lepton+jets and dilepton channels to the data yields a measured top **quark** mass of M_{top} = 172.1±1.1 (stat)±0.9 (syst) GeV/c^2.

Authors:	Aaltonen, T [Helsinki Inst. of Phys.]; Alvarez Gonzalez, B [Oviedo U.; Cantabria Inst. of Phys.]; Amerio, S [INFN, Padua]; Amidei, D [Michigan U.]; Anastassov, A [Northwestern U.]; Annovi, A [Frascati]; Antos, J [Comenius U.]; Apollinari, G [Fermilab]; Appel, J A [Fermilab]; Apresyan, A [Purdue U.]; Arisawa, T [Waseda U.; Dubna, JINR]
Publication Date:	2011-06-03
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DOE Contract Number:	AC02-07CH11359
Type:	Accepted Manuscript
Journal name:	Physical Review. D, Particles, Fields, Gravitation and Cosmology
Additional Journal Information:	Journal Volume: 83; Journal Issue: 11; Journal ID: ISSN 1550-7998
Publisher:	American Physical Society (APS)
Research Org:	Fermi National Accelerator Laboratory (FNAL), Batavia, IL
Sponsoring Org:	USDOE Office of Science (SC)
Country of Publication:	United States
Language:	English
Subject:	72 PHYSICS OF ELEMENTARY PARTICLES AND FIELDS; DECAY; FERMILAB COLLIDER DETECTOR; FERMILAB TEVATRON; LUMINOSITY; T **QUARK**S Experiment-HEP

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Accepted Manuscript (0.75 MB)

Publisher's Version of Record

10.1103/PhysRevD.83.111101

Have feedback or suggestions for a way to improve these results? Let us know!

CITATION FORMATS

MLA
APA
Chicago
Bibtex

EXPORT METADATA

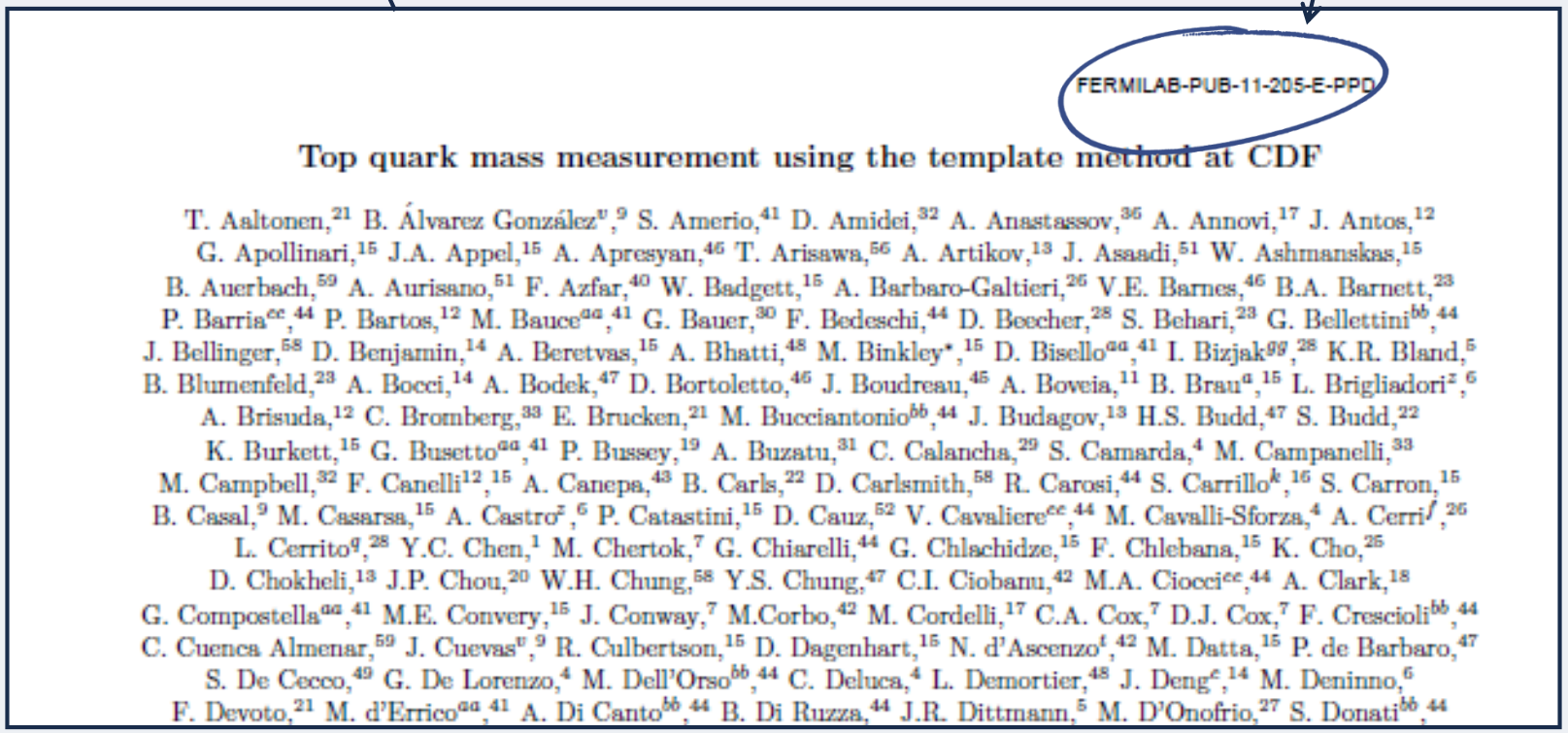
EndNote
Excel
CSV
XML

SAVE / SHARE THIS RECORD

Send to Email

3) Full-text access to accepted manuscript

At a DOE lab repository



FERMILAB-PUB-11-205-E-PPD

Top quark mass measurement using the template method at CDF

T. Aaltonen,[21] B. Álvarez González[v,9] S. Amerio,[41] D. Amidei,[32] A. Anastassov,[36] A. Annovi,[17] J. Antos,[12] G. Apollinari,[15] J.A. Appel,[15] A. Apresyan,[46] T. Arisawa,[56] A. Artikov,[13] J. Asaadi,[51] W. Ashmanskas,[15] B. Auerbach,[59] A. Aurisano,[51] F. Azfar,[40] W. Badgett,[15] A. Barbaro-Galtieri,[26] V.E. Barnes,[46] B.A. Barnett,[23] P. Barria[cc,44] P. Bartos,[12] M. Bauce[aa,41] G. Bauer,[30] F. Bedeschi,[44] D. Beecher,[28] S. Behari,[23] G. Bellettini[bb,44] J. Bellinger,[58] D. Benjamin,[14] A. Beretvas,[15] A. Bhatti,[48] M. Binkley*,[15] D. Bisello[aa,41] I. Bizjak[gg,28] K.R. Bland,[5] B. Blumenfeld,[23] A. Bocci,[14] A. Bodek,[47] D. Bortoletto,[46] J. Boudreau,[45] A. Boveia,[11] B. Brau[a,15] L. Brigliadori[z,6] A. Brisuda,[12] C. Bromberg,[33] E. Brucken,[21] M. Bucciantonio[bb,44] J. Budagov,[13] H.S. Budd,[47] S. Budd,[22] K. Burkett,[15] G. Busetto[aa,41] P. Bussey,[19] A. Buzatu,[31] C. Calancha,[29] S. Camarda,[4] M. Campanelli,[33] M. Campbell,[32] F. Canelli[12,15] A. Canepa,[43] B. Carls,[22] D. Carlsmith,[58] R. Carosi,[44] S. Carrillo[k,16] S. Carron,[15] B. Casal,[9] M. Casarsa,[15] A. Castro[z,6] P. Catastini,[15] D. Cauz,[52] V. Cavaliere[cc,44] M. Cavalli-Sforza,[4] A. Cerri[f,26] L. Cerrito[q,28] Y.C. Chen,[1] M. Chertok,[7] G. Chiarelli,[44] G. Chlachidze,[15] F. Chlebana,[15] K. Cho,[25] D. Chokheli,[13] J.P. Chou,[20] W.H. Chung,[58] Y.S. Chung,[47] C.I. Ciobanu,[42] M.A. Ciocci[cc,44] A. Clark,[18] G. Compostella[aa,41] M.E. Convery,[15] J. Conway,[7] M.Corbo,[42] M. Cordelli,[17] C.A. Cox,[7] D.J. Cox,[7] F. Crescioli[bb,44] C. Cuenca Almenar,[59] J. Cuevas[v,9] R. Culbertson,[15] D. Dagenhart,[15] N. d'Ascenzo[t,42] M. Datta,[15] P. de Barbaro,[47] S. De Cecco,[49] G. De Lorenzo,[4] M. Dell'Orso[bb,44] C. Deluca,[4] L. Demortier,[48] J. Deng[c,14] M. Deninno,[6] F. Devoto,[21] M. d'Errico[aa,41] A. Di Canto[bb,44] B. Di Ruzza,[44] J.R. Dittmann,[5] M. D'Onofrio,[27] S. Donati[bb,44]

Two Pathways of PAGES search (cont.)

Path 2 – From query to article

1) Search query

2) Citation page

Beam dynamics studies for transverse electromagnetic mode type rf deflectors

Citation Details

We have performed three-dimensional simulations of **beam dynamics** for transverse electromagnetic mode (TEM) type rf deflectors: normal and superconducting. The compact size of these cavities as compared to the conventional TM_{110} type structures is more attractive particularly at low frequency. Highly concentrated electromagnetic fields between the parallel bars provide strong electrical stability to the beam for any mechanical disturbance. An array of six 2-cell normal conducting cavities or a single cell superconducting structure is enough to produce the required vertical displacement at the target point. Both the normal and superconducting structures show very small emittance dilution due to the vertical kick of the beam.

Authors:	Ahmed, Shahid; Krafft, Geoffrey A.; Deitrick, Kirsten; De Silva, Subashini U.; Delayen, Jean R.; Spata, Mike; Tiefenback, Michael; Hofler, Alicia; Beard, Kevin
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Sponsoring Org:	USDOE
Country of Publication:	United States
Language:	English

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Have feedback or suggestions for a way to improve these results? Let us know!

CITATION FORMATS

MLA
APA
Chicago
Bibtex

EXPORT METADATA

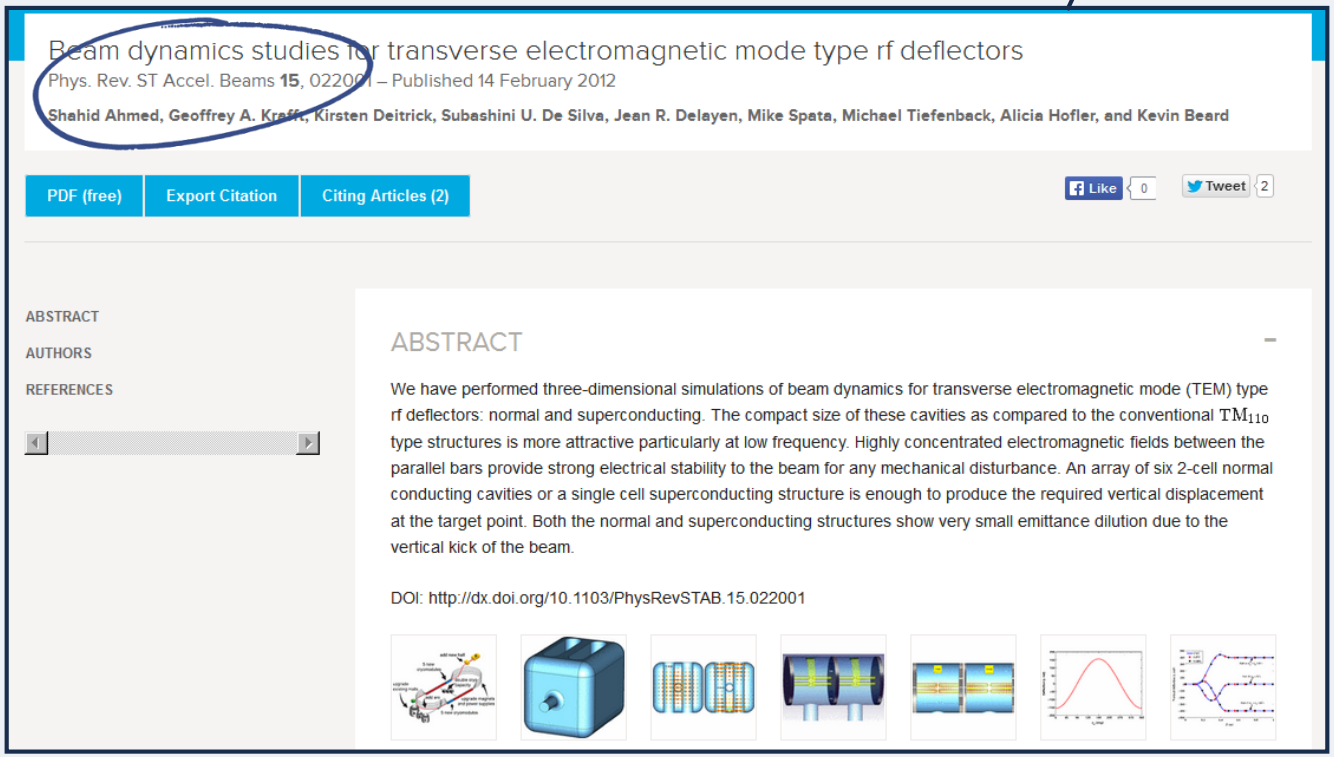
EndNote
Excel
CSV
XML

SAVE / SHARE THIS RECORD

Send to Email

3) Full-text access to article

At publisher website



Conclusion

Implementing public access is by no means an easy effort . . .

However, DOE will have a quick and relatively inexpensive implementation because we are leveraging longstanding STI processes and infrastructure

We will be continuously improving PAGES after it launches, based on stakeholder feedback.

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