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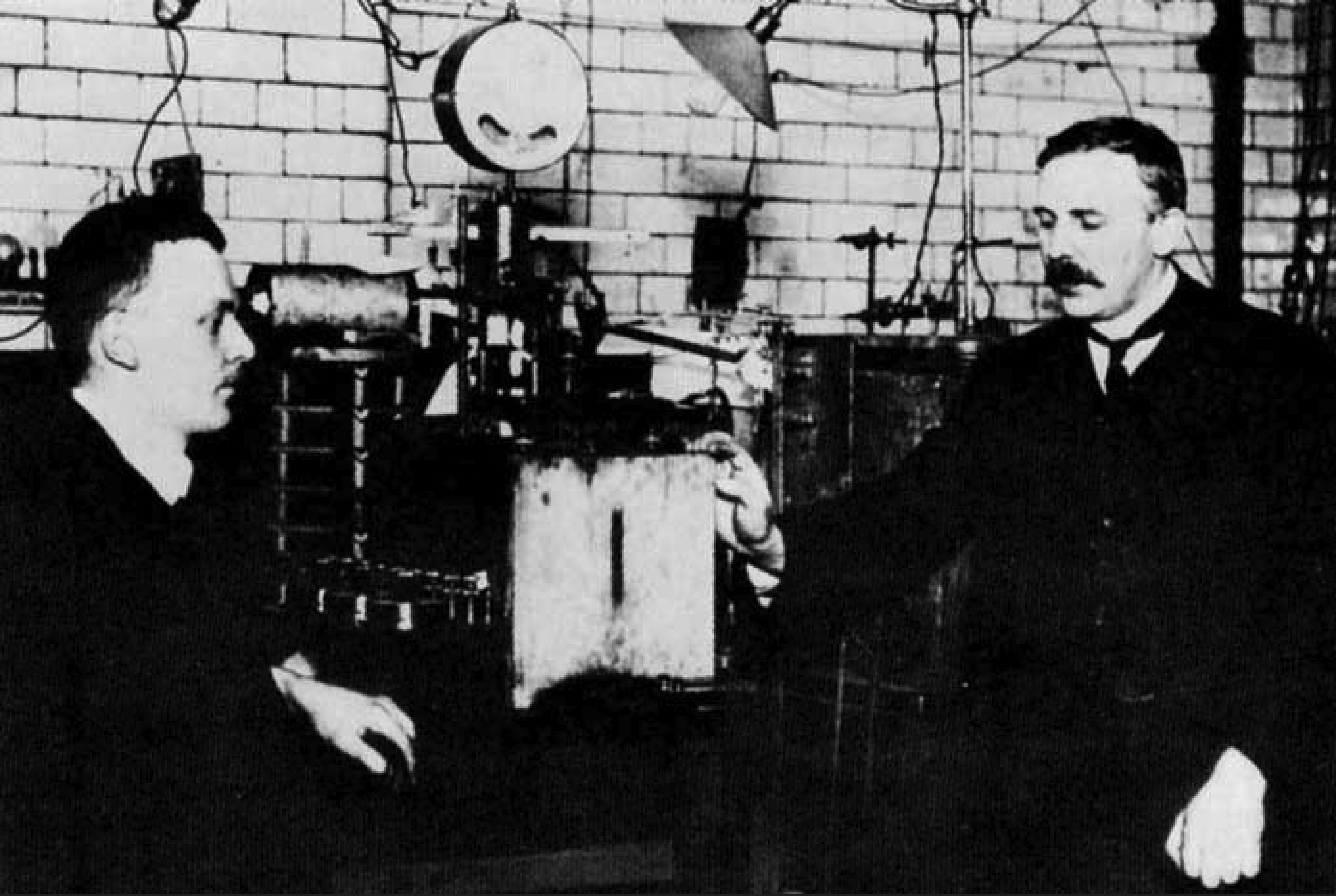
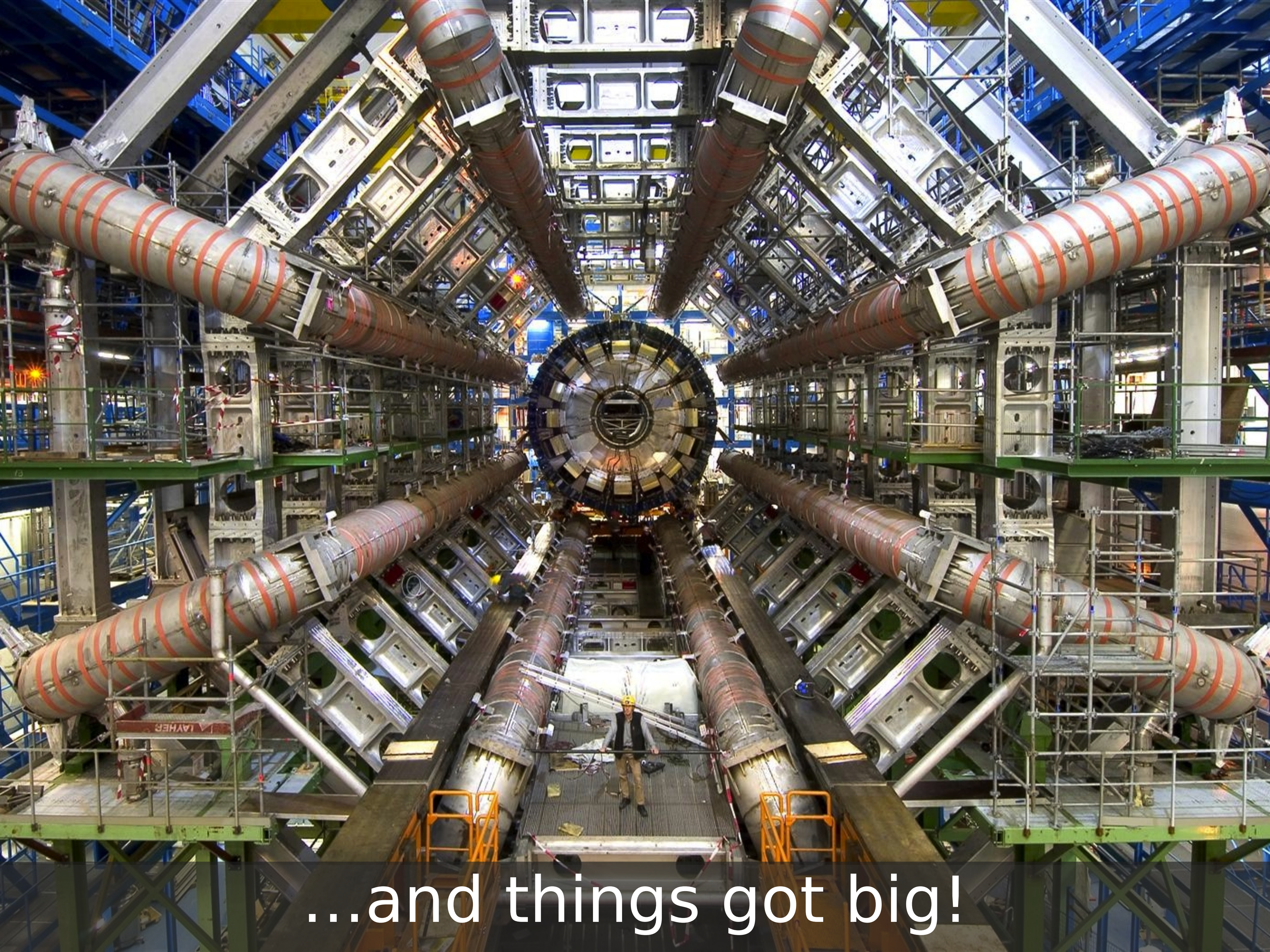


Like most things, it started small...

CERN came along in1954 : the first Council


...and things got big!

First Measurement of Bose-Einstein Correlations in Proton-Proton Collisions at $\sqrt{s} = 0.9$ and 2.36 TeV at the LHC

V. Khachatryan *et al.**
(CMS Collaboration)

(Received 18 May 2010; published 13 July 2010)

Bose-Einstein correlations have been measured using samples of proton-proton collisions at 0.9 and 2.36 TeV center-of-mass energies, recorded by the CMS experiment at the CERN Large Hadron Collider. The signal is observed in the form of an enhancement of pairs of same-sign charged particles with small relative four-momentum. The size of the correlated particle emission region is seen to increase significantly with the particle multiplicity of the event.

DOI: 10.1103/PhysRevLett.105.032001 PACS numbers: 13.85.Hd

In particle collisions, the space-time structure of the hadronization source can be studied using measurements of Bose-Einstein correlations (BEC) between pairs of identical bosons. Since the first observation of BEC 50 years ago in proton-antiproton interactions [1], a number of measurements have been made by several experiments using different initial states; a detailed list of the experimental results can be found in [2,3]. Boson interferometry at the Large Hadron Collider provides a powerful tool to investigate the space-time structure of the particle emission source on femtometric length scales at different center-of-mass energies and with different initial states, using the same detector. This Letter reports the first measurements of BEC at the LHC with the CMS detector, namely, the first measurement in pp collisions at 0.9 TeV and the highest energy measurement at 2.36 TeV.

Constructive interference affects the joint probability for the emission of a pair of identical bosons with four-momenta p_1 and p_2. Experimentally, the proximity in phase space between final-state particles is quantified by the Lorentz-invariant quantity $Q = \sqrt{-(p_1 - p_2)^2} = \sqrt{M^2 - 4m_\pi^2}$, where M is the invariant mass of the two particles, assumed to be pions with mass m_π. The BEC effect is observed as an enhancement at low Q of the ratio of the Q distributions for pairs of identical particles in the same event, and for pairs of particles in a reference sample that, by construction, is expected to include no BEC effect:

$$R(Q) = (dN/dQ)/(dN_{\mathrm{ref}}/dQ), \quad (1)$$

which is then fitted with the parametrization

$$R(Q) = C[1 + \lambda\Omega(Qr)](1 + \delta Q). \quad (2)$$

In a static model of particle sources, $\Omega(Qr)$ is the Fourier transform of the spatial distribution of the emission region of bosons with overlapping wave functions, characterized by an effective size r. It is often parametrized as an exponential function $\Omega(Qr) = e^{-Qr}$, or with a Gaussian form $\Omega(Qr) = e^{-(Qr)^2}$ (see [4] and references therein). The parameter λ reflects the BEC strength for incoherent boson emission from independent sources, δ accounts for long-range momentum correlations, and C is a normalization factor.

The data used for the present analysis were collected by the CMS experiment in December 2009 from proton-proton collisions at center-of-mass energies of 0.9 and 2.36 TeV. A detailed description of the CMS detector can be found in [5]. The central feature of the CMS apparatus is a superconducting solenoid of 6 m internal diameter, providing a uniform magnetic field of 3.8 T. The inner tracking system is the most relevant detector for the present analysis. It is composed of a pixel detector with three barrel layers at radii between 4.4 and 10.2 cm and a silicon strip tracker with 10 barrel detection layers extending outwards to a radius of 1.1 m. Each system is completed by two end caps, extending the acceptance up to a pseudorapidity $|\eta| = 2.5$. The transverse-momentum (p_T) resolution, for 1 GeV charged particles, is between 0.7% at $\eta = 0$ and 2% at $|\eta| = 2.5$. The events were selected by requiring activity in both beam scintillator counters [6]. A minimum-bias Monte Carlo (MC) sample was generated using PYTHIA (with D6T tune) [7] followed by full detector simulation based on the GEANT4 program [8]. Additional PYTHIA MC samples were generated to simulate BEC effects with both Gaussian and exponential forms of $\Omega(Qr)$.

Charged particles are required to have $p_T > 200$ MeV, which is sufficient for particles emitted from the interaction region to cross all three barrel layers of the pixel detector and ensure good two-track separation. Their pseudorapidity is required to satisfy $|\eta_{\mathrm{track}}| < 2.4$. To ensure high purity of the primary track selection, the trajectories are required to be reconstructed in fits with more than 5 degrees of freedom (dof) and $\chi^2/N_{\mathrm{dof}} < 5.0$. The transverse impact parameter with respect to the collision point is

*Full author list given at the end of the article.

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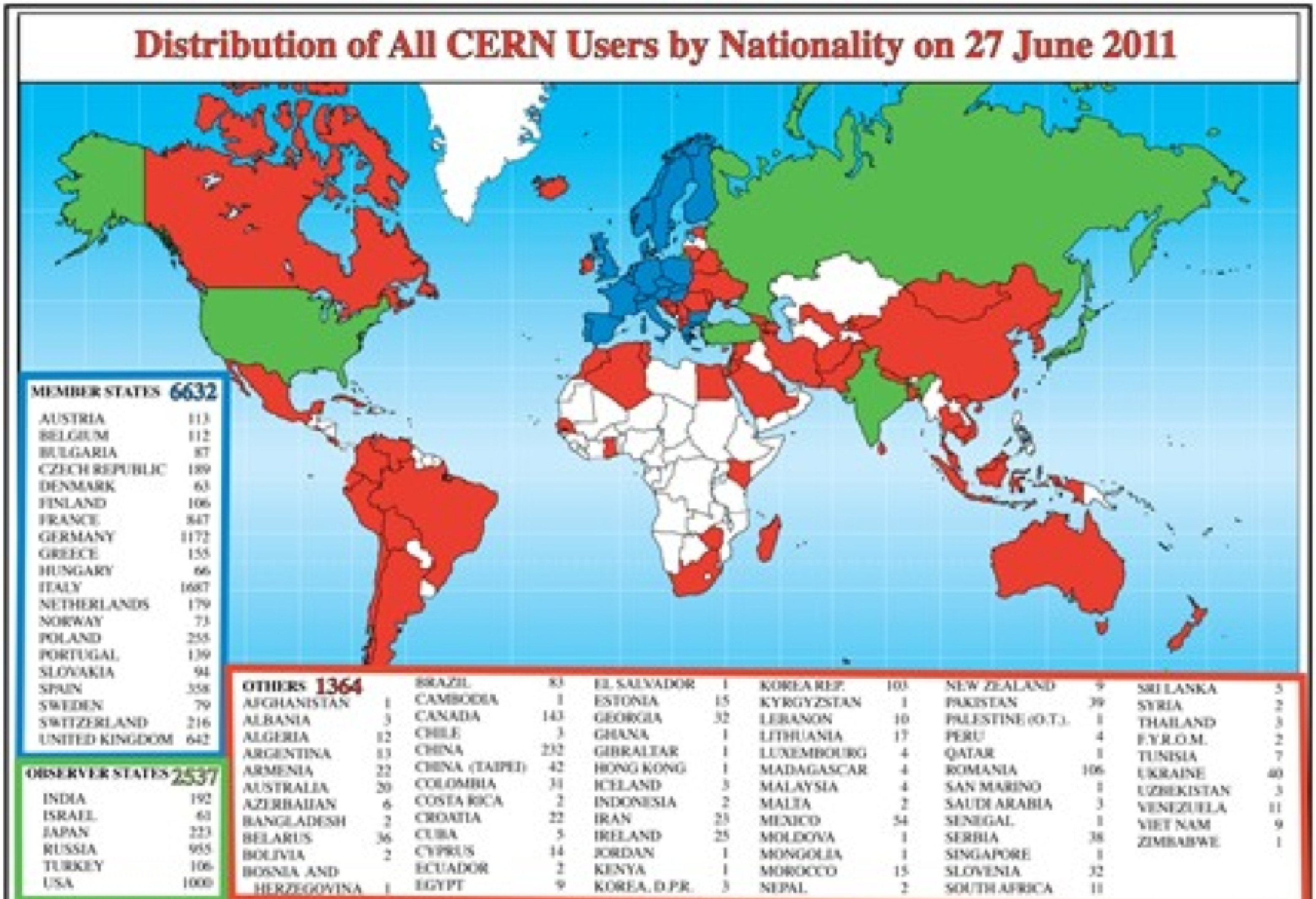

1665

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The Contents.

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Performance of the ATLAS detector using first collision data

The ATLAS collaboration

Abstract: More than half a million minimum-bias events of LHC collision data were co lected by the ATLAS experiment in December 2009 at centre-of-mass energies of 0.9 Te and 2.36 TeV. This paper reports on studies of the initial performance of the ATLAS de tector from these data. Comparisons between data and Monte Carlo predictions are show for distributions of several track- and calorimeter-based quantities. The good performanc of the ATLAS detector in these first data gives confidence for successful running at highe energies.

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[6] ATLAS collaboration, G. Aad et al., *Drift Time Measurement in the ATLAS Liqui* *Electromagnetic Calorimeter using Cosmic Muons*, arXiv:1002.4189 [SPIRES].

1884

2010

TABLE XXXII.

Reference No.	Before the explosion.			After the explosion.				Temperature.	a.
	Oxygen.	Carbonic oxide.	Hydrogen.	Carbonic oxide.	Carbonic acid.	Hydrogen.	Steam.	°C	
100	17·3	24	76	21·4	2·6	44·1	31·9	0	5·9
101	,,	,,	,,	20·5	3·4	44·7	31·3	70	4·2
102	,,	,,	,,	20·4	3·5	44·7	31·3	80	4·0
103	,,	,,	,,	20·4	3·6	44·4	31·6	100	4·0
104	15·9	24·5	75·5	21·2	3·3	47·0	28·5	125	4·0

Between 0° and 70° a large fall of the coefficient occurs; between 70° and 80° there is a slight fall; from 80° to 125° it remains constant. The high temperature constant with this mixture is rather higher than with mixtures containing excess of carbonic oxide.

A fourth mixture, containing about equal volumes of carbonic oxide and hydrogen, was next exploded at 70°, 80°, and 120° under 1000 millims. pressure. For the purpose of comparison an experiment previously made with a nearly similar mixture at 14° is included in the table.

Table 3
Double-differential dijet mass cross section in the rapidity range $0.5 < |y|_{max} < 1.0$. The
is calculated as described in the text. The experimental systematic uncertainties of the i

Mass range (TeV)	Reference mass (TeV)	Measured cross sec (pb/TeV)
[0.197, 0.220]	0.208	1.74×10^6
[0.220, 0.244]	0.231	1.02×10^6
[0.244, 0.270]	0.256	6.00×10^5
[0.270, 0.296]	0.282	3.64×10^5
[0.296, 0.325]	0.310	2.22×10^5
[0.325, 0.354]	0.339	1.38×10^5
[0.354, 0.386]	0.369	8.64×10^4
[0.386, 0.419]	0.402	5.42×10^4
[0.419, 0.453]	0.435	3.55×10^4
[0.453, 0.489]	0.470	2.34×10^4
[0.489, 0.526]	0.507	1.53×10^4
[0.526, 0.565]	0.545	1.01×10^4
[0.565, 0.606]	0.585	6.90×10^3
[0.606, 0.649]	0.627	4.60×10^3

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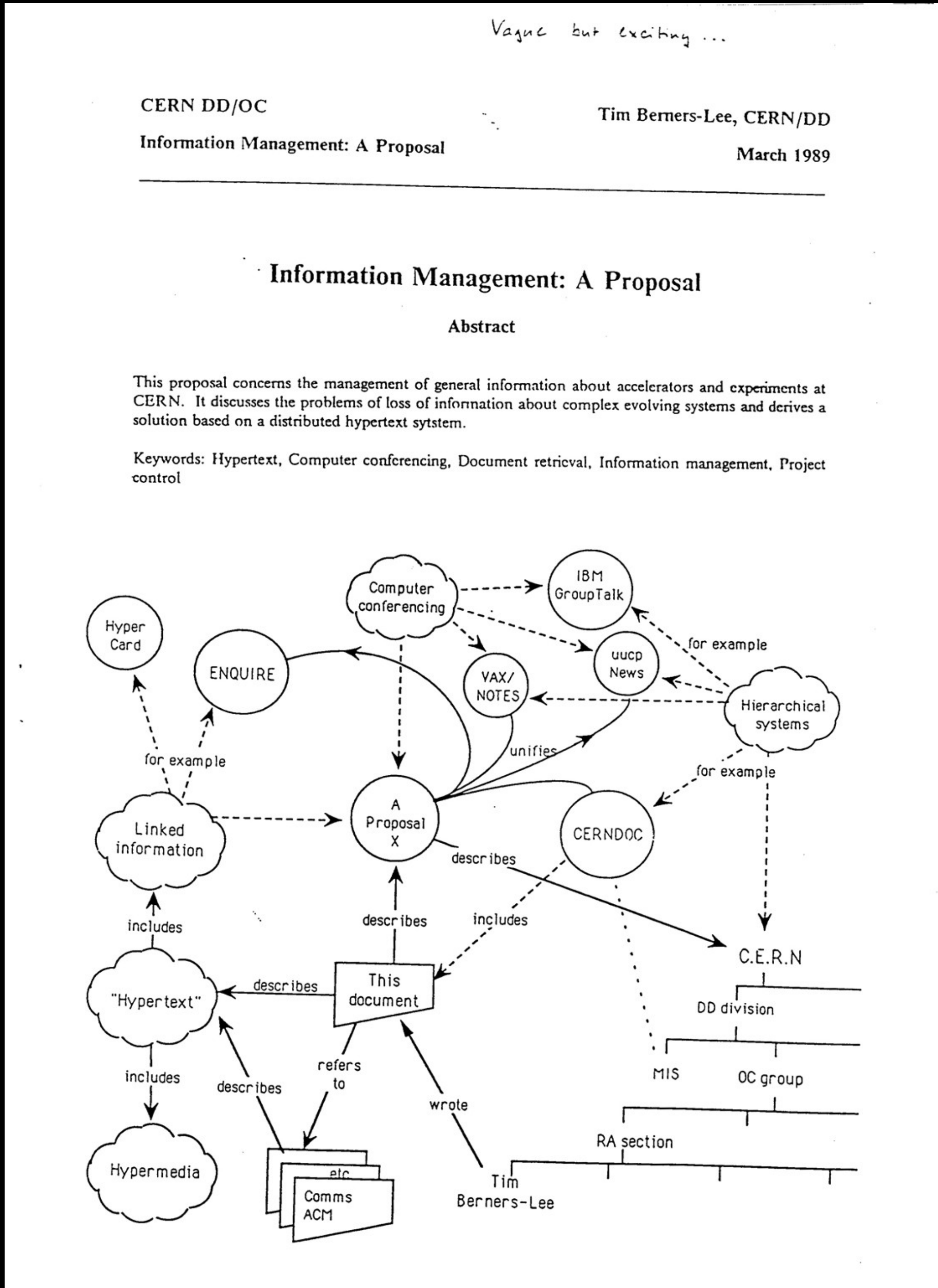

Vague but exciting ...

CERN DD/OC

Information Management: A Proposal

Tim Berners-Lee, CERN/DD

March 1989

Information Management: A Proposal

Abstract

This proposal concerns the management of general information about accelerators and experiments at CERN. It discusses the problems of loss of information about complex evolving systems and derives a solution based on a distributed hypertext sytstem.

Keywords: Hypertext, Computer conferencing, Document retrieval, Information management, Project control

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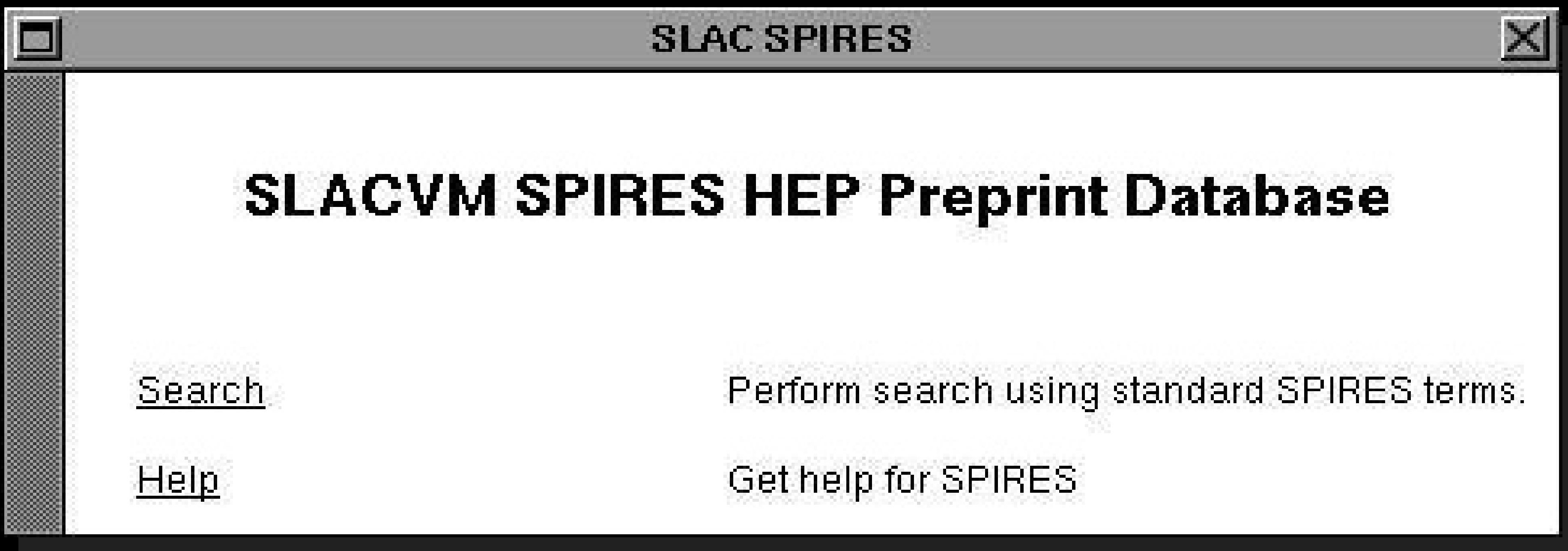

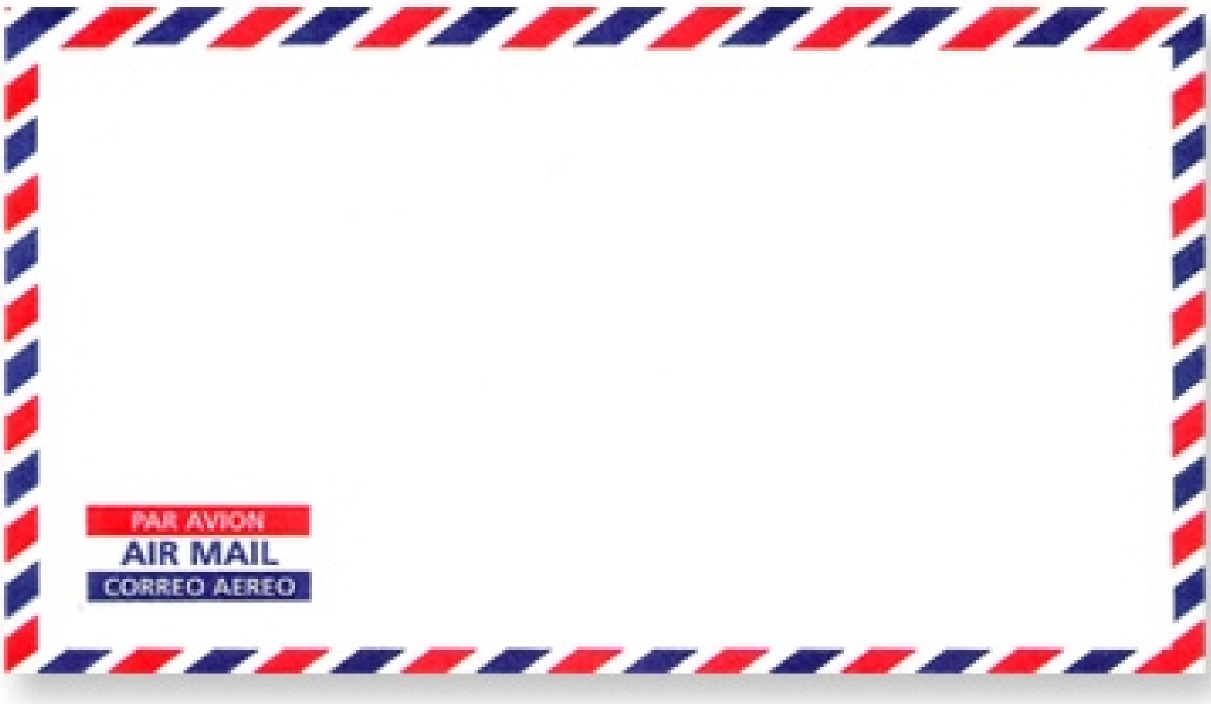

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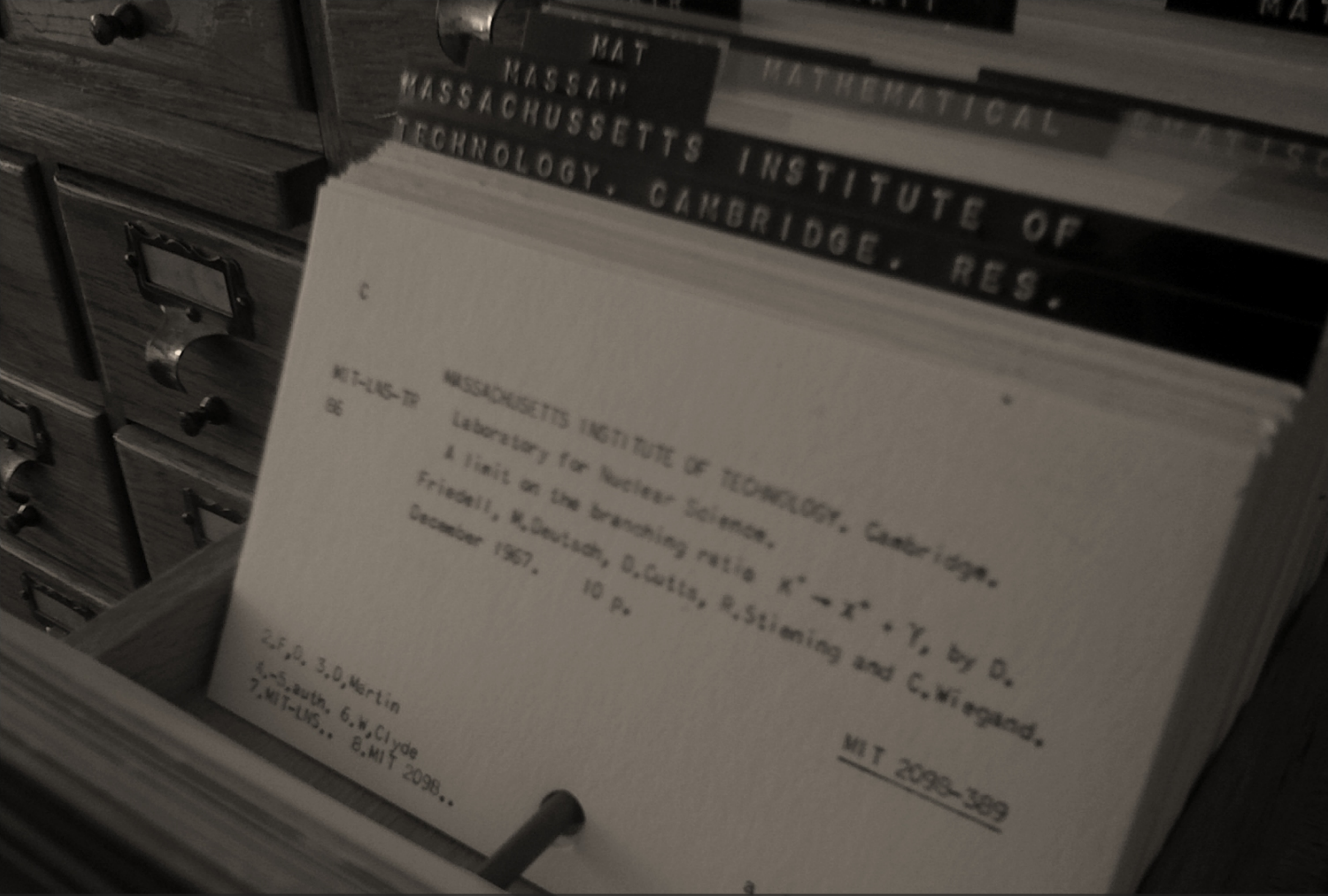

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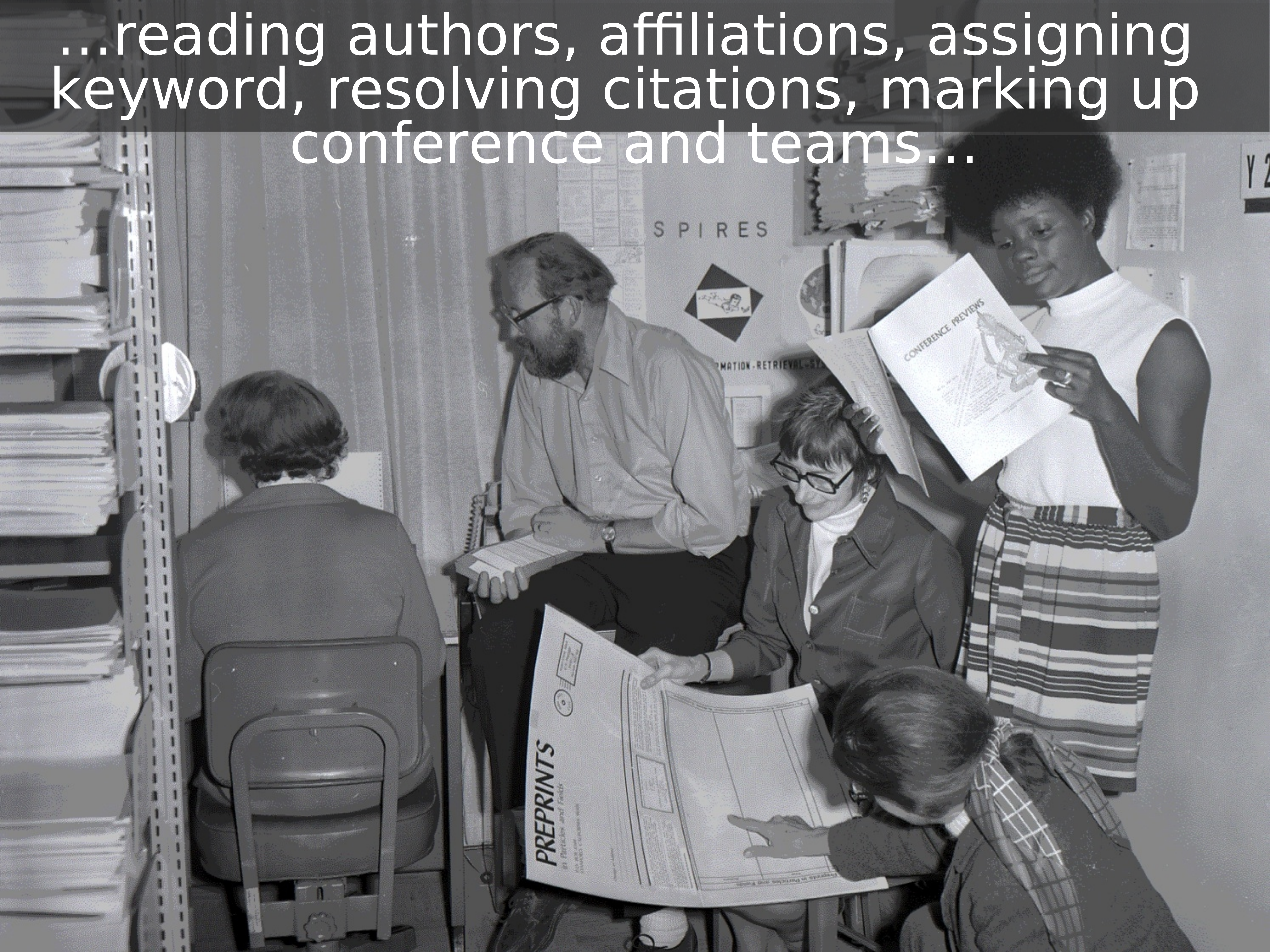

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Superluminal neutrinos?

Measurement of the neutrino velocity with the OPERA detector in the CNGS beam

T. Adam[a], N. Agafonova[b], A. Aleksandrov[c,1], O. Altinok[d], P. Alvarez Sanchez[e], S. Aoki[f], A. Ariga[g], T. Ariga[g], D. Autiero[h], A. Badertscher[i], A. Ben Dhahbi[g], A. Bertolin[j], C. Bozza[k], T. Brugière[h], F. Brunet[l], G. Brunetti[h,m,2], S. Buontempo[c], F. Cavanna[n], A. Cazes[h], L. Chaussard[h], M. Chernyavskiy[o], V. Chiarella[p], A. Chukanov[q], G. Colosimo[r], M. Crespi[r], N. D'Ambrosio[s], Y. Déclais[h], P. del Amo Sanchez[l], G. De Lellis[t,c], M. De Serio[u], F. Di Capua[c], F. Cavanna[p], A. Di Crescenzo[t,c], D. Di Ferdinando[v], N. Di Marco[s], S. Dmitrievsky[q], M. Dracos[a], D. Duchesneau[l], S. Dusini[j], J. Ebert[w], I. Eftimiopolous[e], O. Egorov[x], A. Ereditato[g], L.S. Esposito[i], J. Favier[l], T. Ferber[w], R.A. Fini[u], T. Fukuda[y], A. Garfagnini[z,j], G. Giacomelli[m,v], C. Girerd[h], M. Giorgini[m,v,3], M. Giovannozzi[e], J. Goldberg[aa], C. Göllnitz[w], L. Goncharova[o], Y. Gornushkin[q], G. Grella[k], F. Grianti[ab,p], E. Gschewentner[e], C. Guerin[h], A.M. Guler[d], C. Gustavino[ac], K. Hamada[ad], T. Hara[f], M. Hierholzer[w], A. Hollnagel[w], M. Ieva[u], H. Ishida[y], K. Ishiguro[ad], K. Jakovcic[ae], C. Jollet[a], M. Jones[e], F. Juget[g], M. Kamiscioglu[d], J. Kawada[g], S.H. Kim[af,4], M. Kimura[y], N. Kitagawa[ad], B. Klicek[ae], J. Knuesel[g], K. Kodama[ag], M. Komatsu[ad], U. Kose[j], I. Kreslo[g], C. Lazzaro[i], J. Lenkeit[w], A. Ljubicic[ae], A. Longhin[p], A. Malgin[b], G. Mandrioli[v], J. Marteau[h], T. Matsuo[y], N. Mauri[p], A. Mazzoni[r], E. Medinaceli[z,j], F. Meisel[g], A. Meregaglia[a], P. Migliozzi[c], S. Mikado[y], D. Missiaen[e], K. Morishima[ad], U. Moser[g], M.T. Muciaccia[ah,u], N. Naganawa[ad], T. Naka[ad], M. Nakamura[ad], T. Nakano[ad], Y. Nakatsuka[ad], D. Naumov[q], V. Nikitina[ai], S. Ogawa[y], N. Okateva[o], A. Olchevsky[s], O. Palamara[s], A. Paoloni[p], B.D. Park[af,5], I.G. Park[af], A. Pastore[ag,u], L. Patrizii[v], E. Pennacchio[h], H. Pessard[l], C. Pistillo[g], N. Polukhina[o], M. Pozzato[m,v], K. Pretzl[g], F. Pupilli[s], R. Rescigno[k], T. Roganova[ai], H. Rokujo[f], G. Rosa[aj,ac], I. Rostovtseva[x], A. Rubbia[i], A. Russo[c], O. Sato[ad], Y. Sato[ak], A. Schembri[s], J. Schuler[a], L. Scotto Lavina[g,6], J. Serrano[e], A. Sheshukov[q], H. Shibuya[y], G. Shoziyoev[ai], S. Simone[ah,u]

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   Jacek Ciborowski, Jakub Rembielinski
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6. arXiv:1109.5445 [pdf, ps, other]
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   F. Tamburini (1), M. Laveder (2), ((1) Department of Astronomy, University of Padova, Padova, Italy (2) Department of Physics, University of Padova, Padova, Italy)
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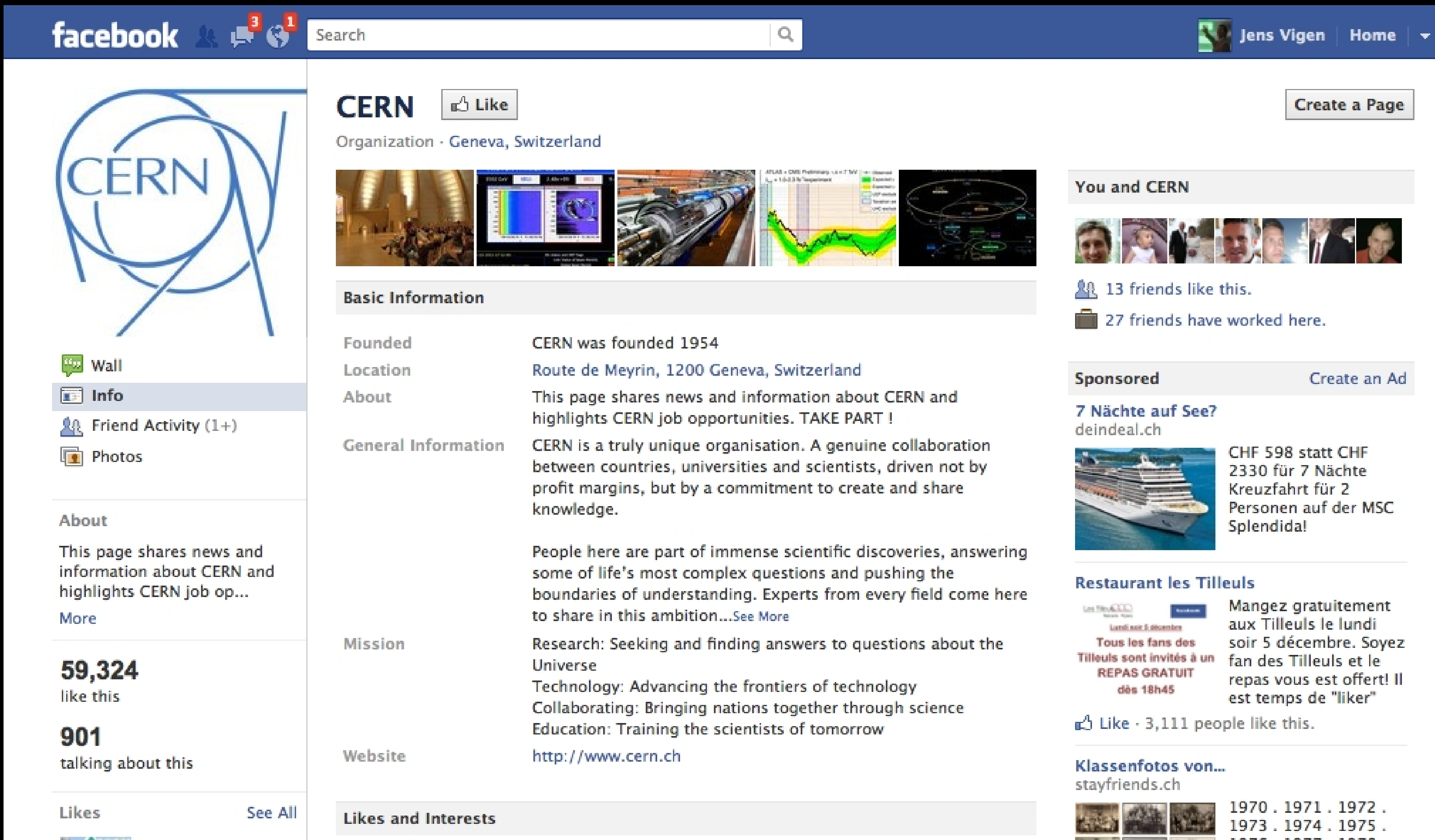

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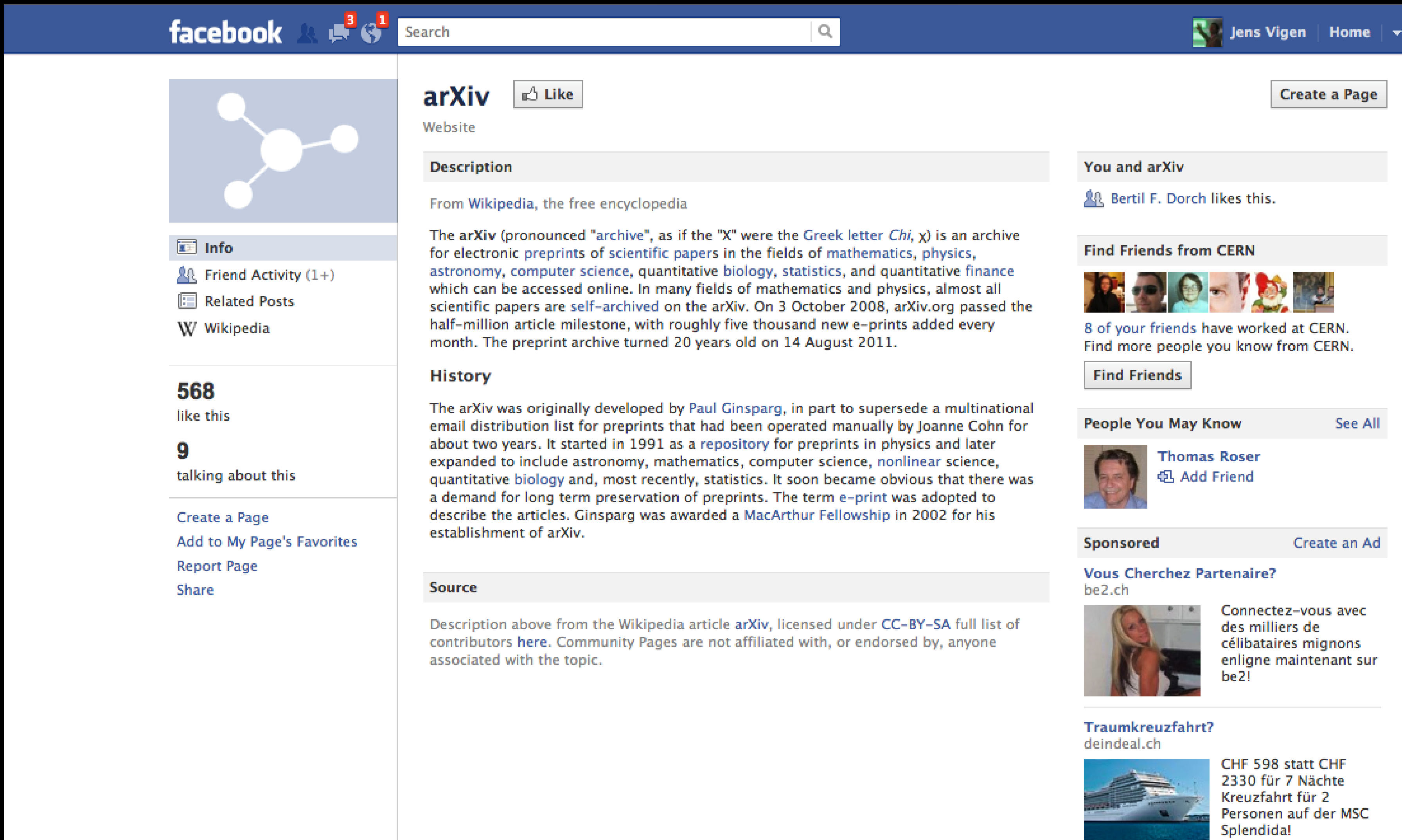

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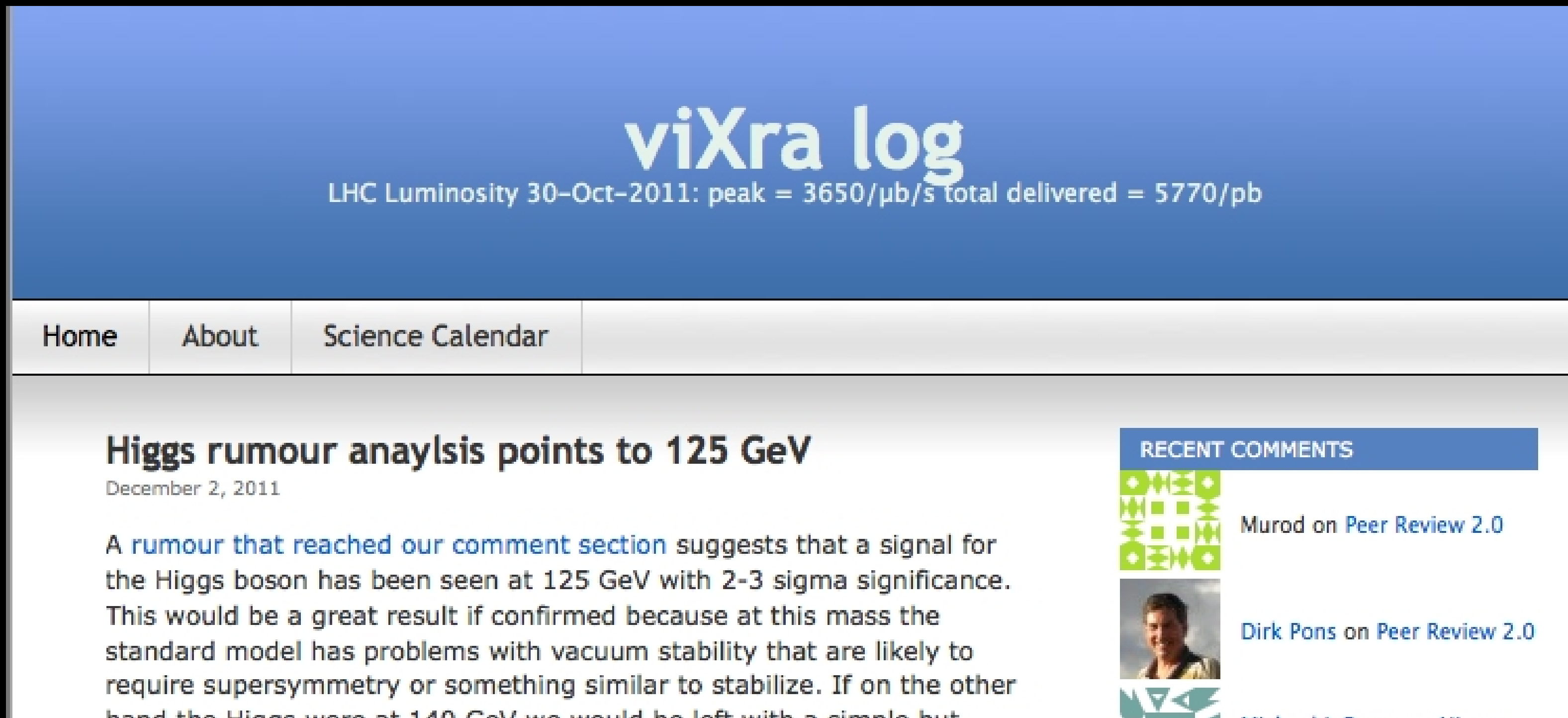
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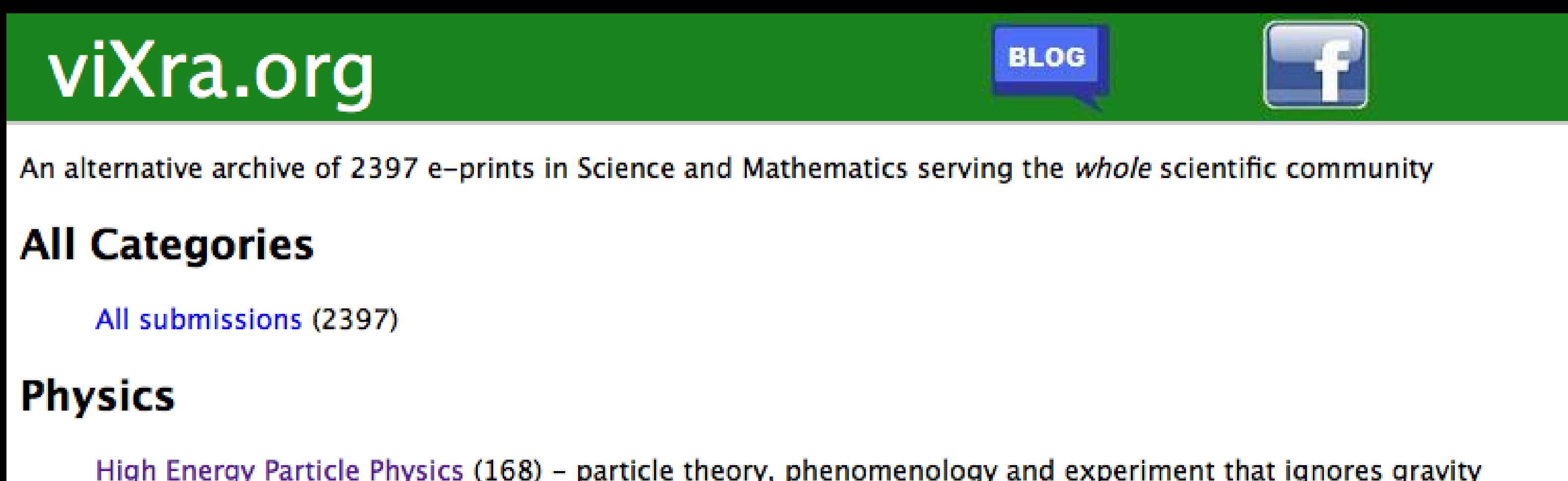
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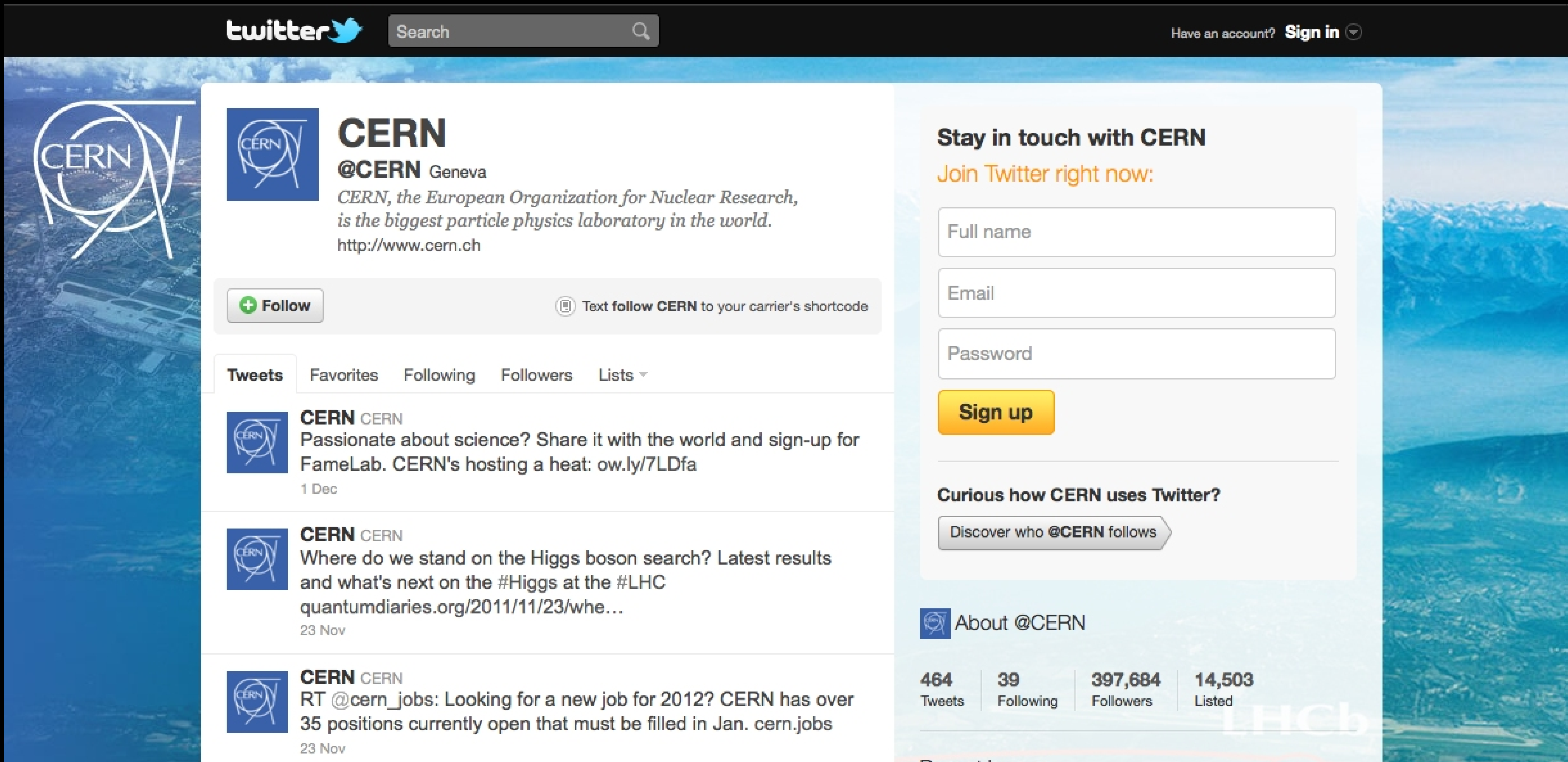

Quantum Diaries

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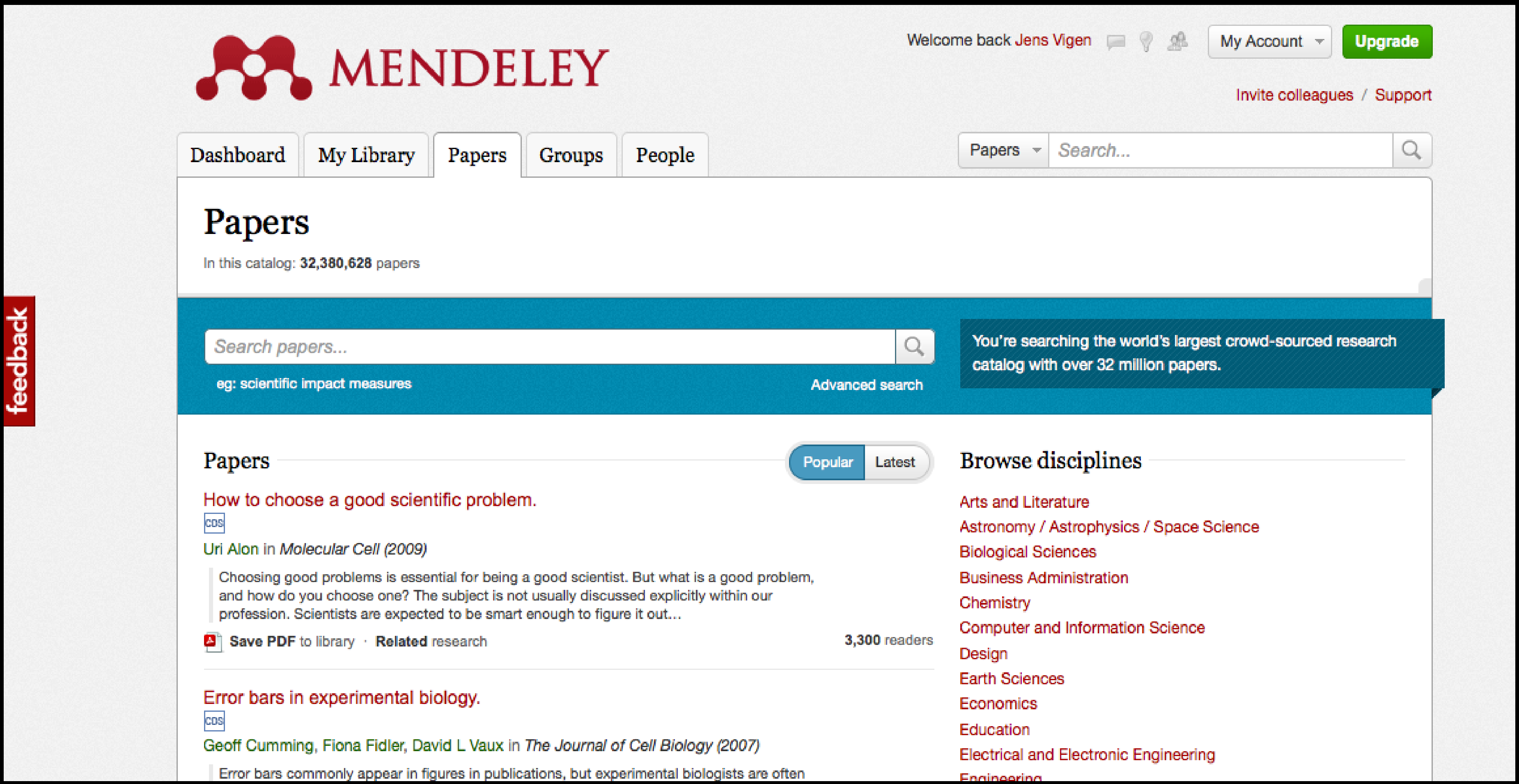

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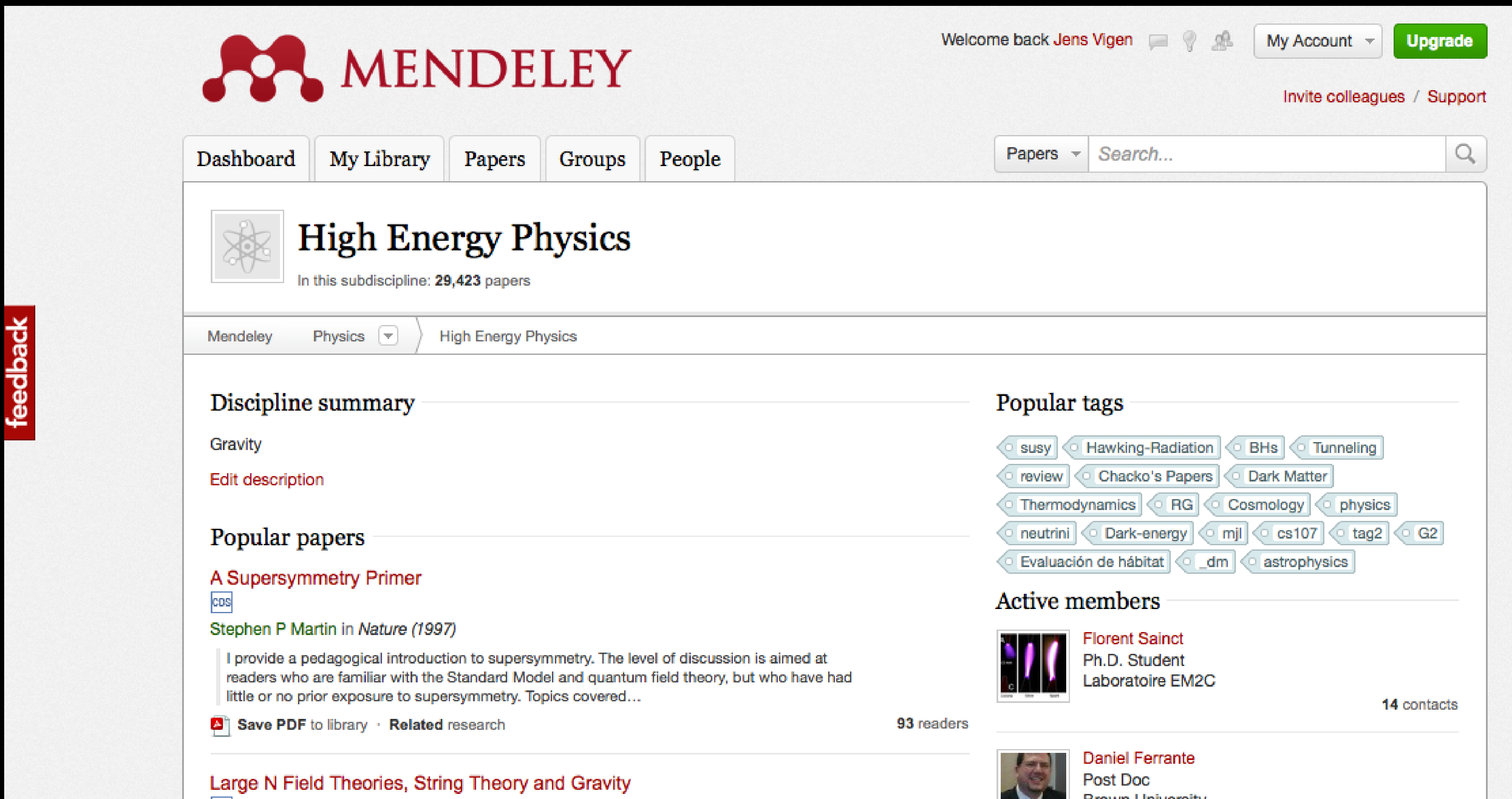

The ATLAS leak …

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The Language of Bad Physics

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Higgs Gossip: Observation of a γγ resonance at a mass…

By S.C. Kavassalis
Posted: April 22, 2011

► Observation of a γγ resonance at a mass - **CERN** Document Server: Home
cdsweb.cern.ch/record/1346326

Update (April 25th, 2011) at end.

So I woke up this morning to several emails about a strange "Higgs sighting" at ATLAS. On a Woit's blog, a commenter named Higgs? shared an abstract purporting observations of some 115 GeV resonance at CERN. It claims to be from an "internal note" from the ATLAS Collaboration.

> Higgs? *says:*
> *April 21, 2011 at 12:45 pm*
> *Internal Note*
> *Report number ATL-COM-PHYS-2011-415*

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About the Author

Sarah Kavassalis: Permanent student of mathematics, physics and, sometimes, the philosophy of their intersection. Research interests in mathematical relativity, non-trivial spacetime topologies, discrete spacetimes, order theory and the related philosophy of mathematics.

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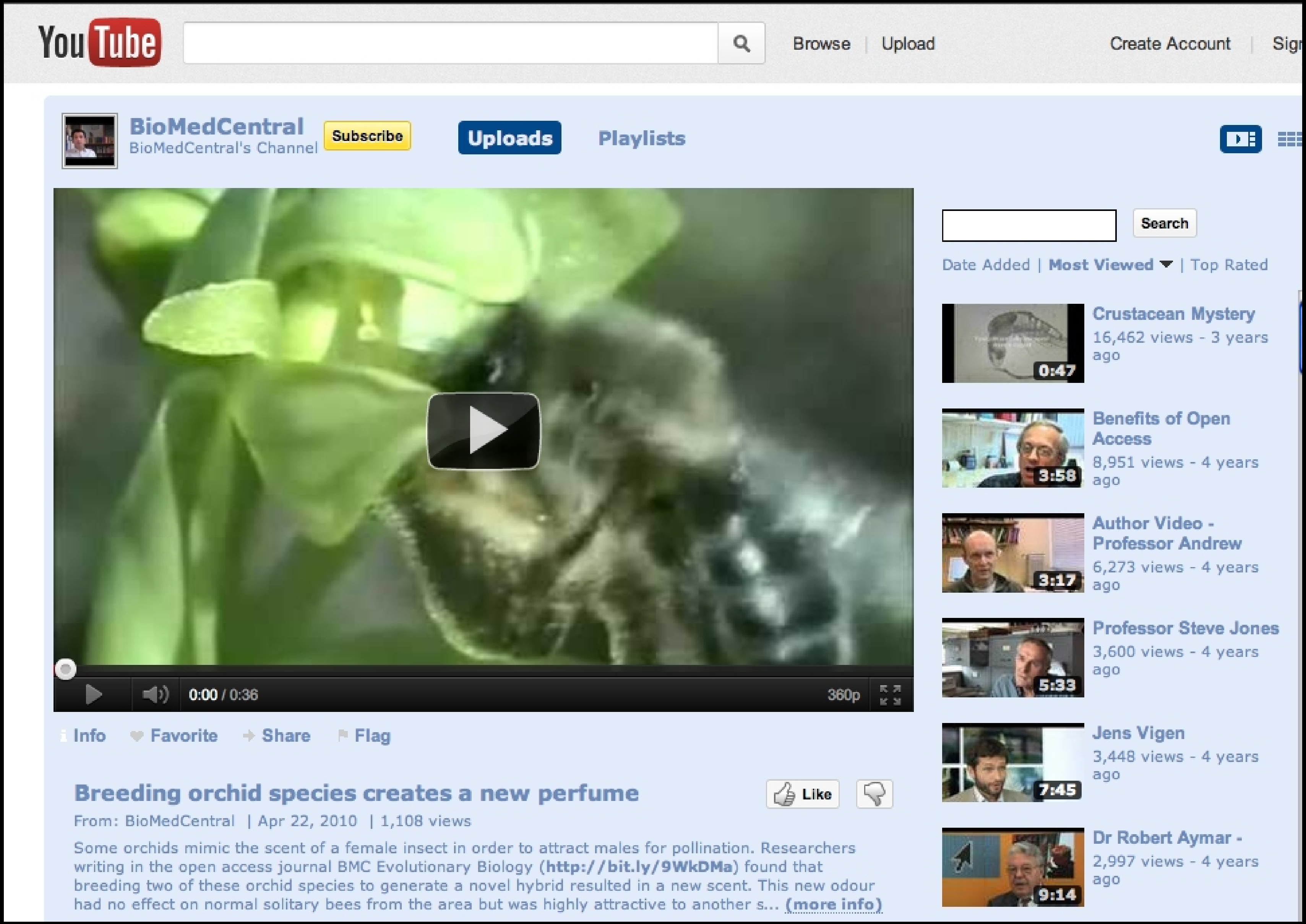

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Breeding orchid species creates a new perfume
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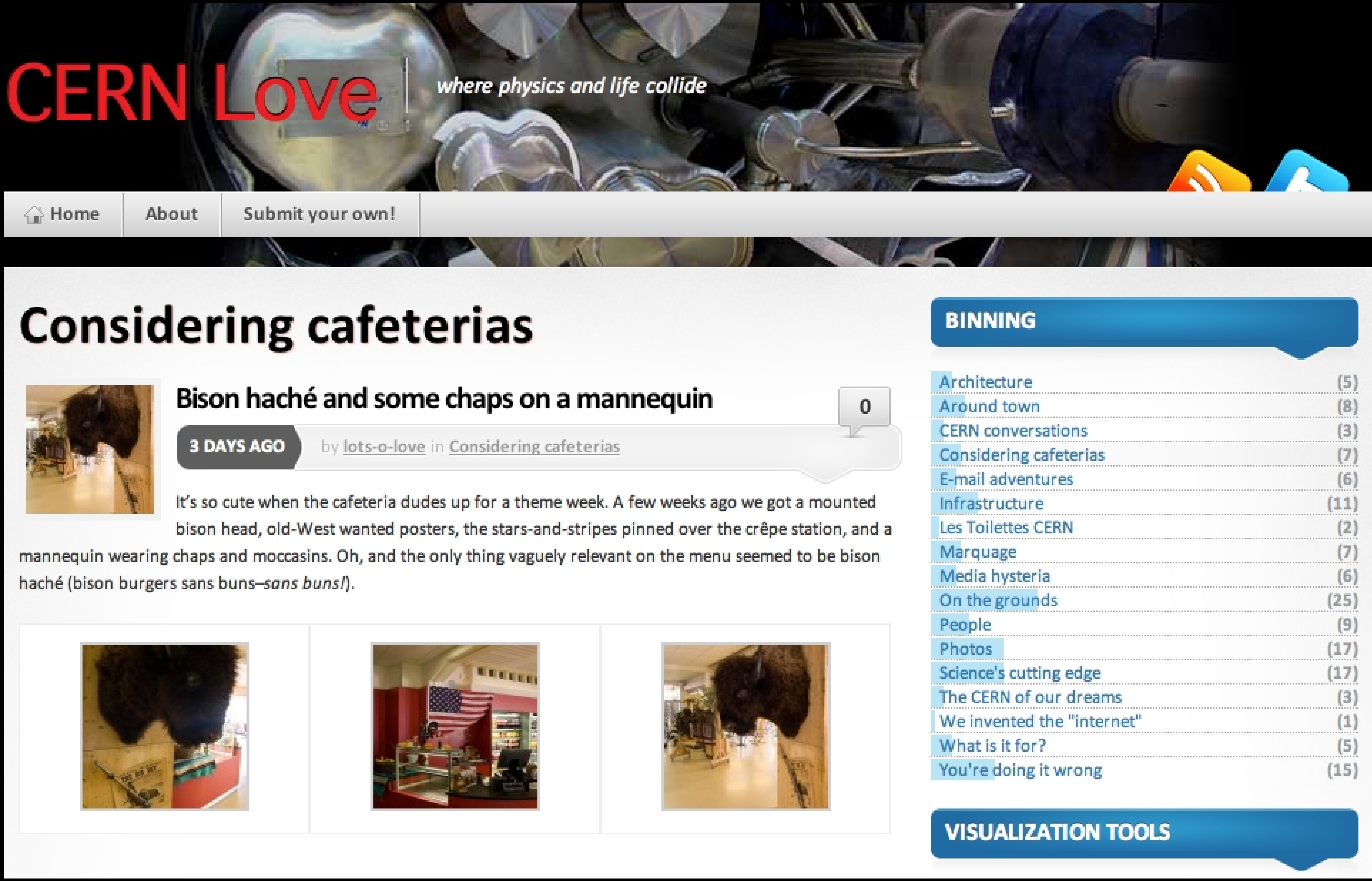
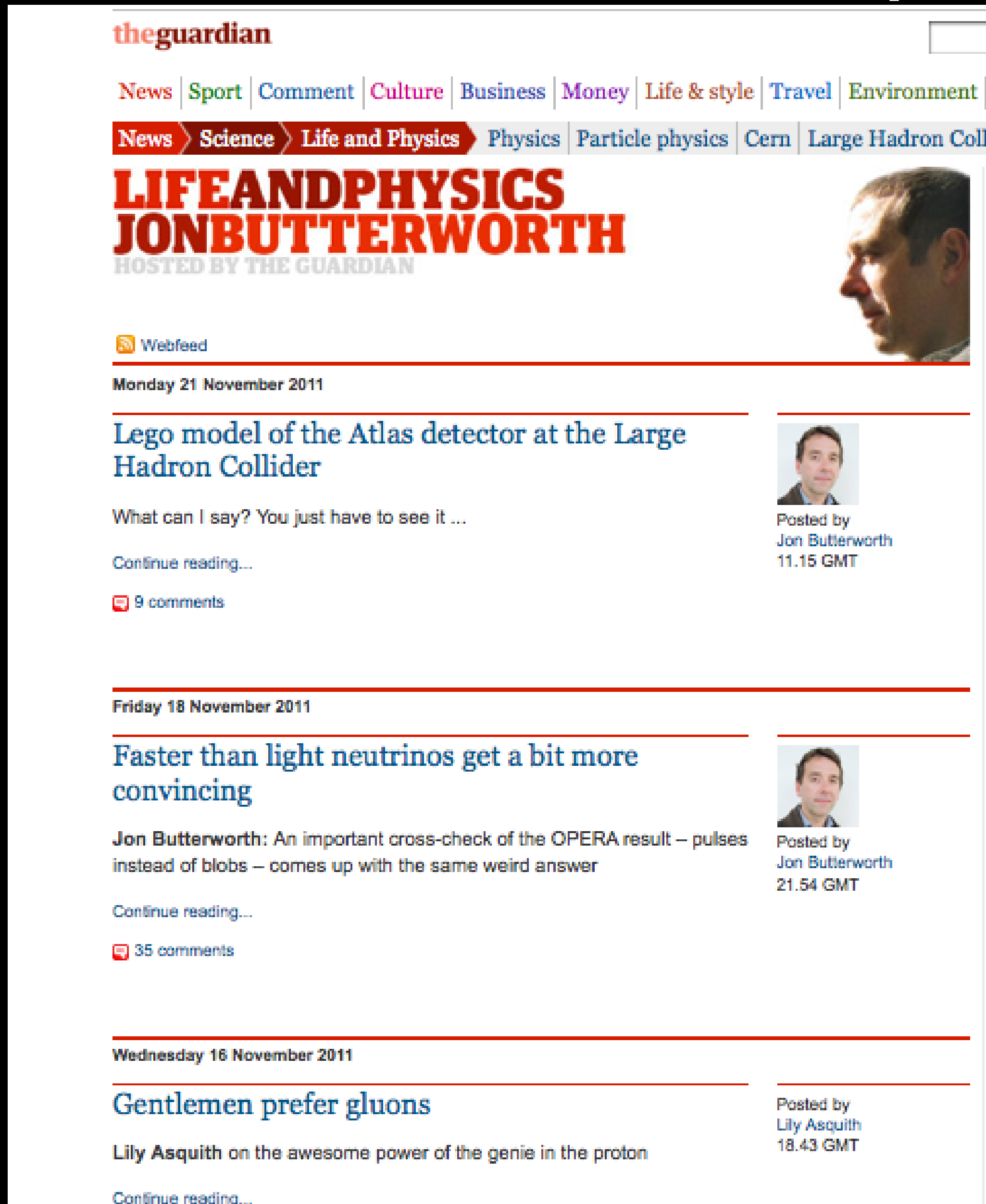
From: BioMedCentral | Apr 22, 2010 | 1,108 views
Some orchids mimic the scent of a female insect in order to attract males for pollination. Researchers writing in the open access journal BMC Evolutionary Biology (http://bit.ly/9WkDMa) found that breeding two of these orchid species to generate a novel hybrid resulted in a new scent. This new odour had no effect on normal solitary bees from the area but was highly attractive to another s... (more info)

CERN Love


CERN Love
where physics and life collide
Home
About
Submit your own!
Considering cafeterias
Bison haché and some chaps on a mannequin
0
3 DAYS AGO
by lots-o-love in Considering cafeterias
It's so cute when the cafeteria dudes up for a theme week. A few weeks ago we got a mounted bison head, old-West wanted posters, the stars-and-stripes pinned over the crêpe station, and a mannequin wearing chaps and moccasins. Oh, and the only thing vaguely relevant on the menu seemed to be bison haché (bison burgers sans buns–*sans buns!*).
BINNING
Architecture (5)
Around town (8)
CERN conversations (3)
Considering cafeterias (7)
E-mail adventures (6)
Infrastructure (11)
Les Toilettes CERN (2)
Marquage (7)
Media hysteria (6)
On the grounds (25)
People (9)
Photos (17)
Science's cutting edge (17)
The CERN of our dreams (3)
We invented the "internet" (1)
What is it for? (5)
You're doing it wrong (15)
VISUALIZATION TOOLS

The Guardian : life and physics



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LIFEANDPHYSICS
JONBUTTERWORTH
HOSTED BY THE GUARDIAN

Webfeed

Monday 21 November 2011

Lego model of the Atlas detector at the Large Hadron Collider

What can I say? You just have to see it ...

Continue reading...

9 comments

Posted by
Jon Butterworth
11.15 GMT

Friday 18 November 2011

Faster than light neutrinos get a bit more convincing

Jon Butterworth: An important cross-check of the OPERA result – pulses instead of blobs – comes up with the same weird answer

Continue reading...

35 comments

Posted by
Jon Butterworth
21.54 GMT

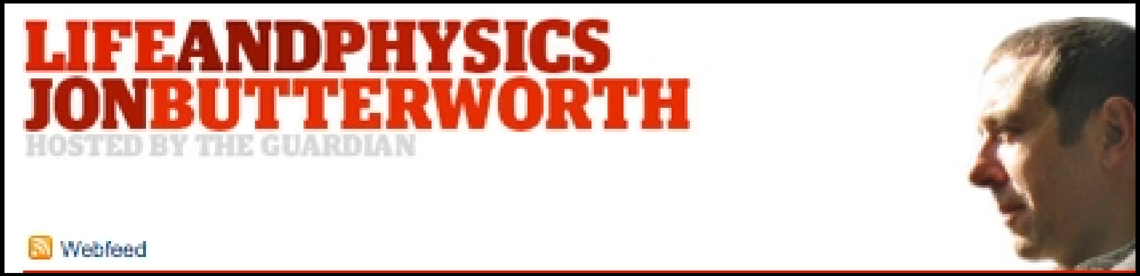
Wednesday 16 November 2011

Gentlemen prefer gluons

Lily Asquith on the awesome power of the genie in the proton

Continue reading...

Posted by
Lily Asquith
18.43 GMT



I haven't thought about blogging from a librarian point of view. Whether it should be archived… well… probably yes.

My motivations for blogging vary with the blogpost

- *The first is to provide the audience with more information and context, should they desire it, behind science headlines & stories, especially those close to my own research of course. I think particle physics in general and the LHC in particular provide high profile yet unthreatening science stories. Showing people the real scientific process in such cases may help them understand the scientific parts of the debates on e.g climate change, vaccines or embyro research.*
- *The second is that scientist are underrepresented in the wider culture and political debate. I see blog as part of a continuum between tabloid headlines and academic journals.*

I could imagine contemporary accounts of e.g. the Higgs search would be of interest to future geeks.

1m records (HEP and neighboring fields)

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Ellis, John R. (903 papers)

This is me. Verify my publication list.

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Ellis, Jonathan R. (2)
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Papers

All papers (903)
Report (903)
Published (606)

Affiliations

CERN (823)
SLAC (37)
Caltech (9)

Frequent co-authors

Nanopoulos, Dimitri V. (222)
Olive, Keith A. (104)

Frequent keywords

supersymmetry (297)
Higgs particle: mass (132)
dark matter (128)

>2’500

claimed profiles

(out of 30’000 active physicists, without major effort)

>30%

response rate to solicitation

(mostly within hours!)

John Ellis –
Author page: citation stats

Citations:

Citation summary results	All papers	Published only
Total number of citable papers analyzed:	729	606
Total number of citations:	51,029	48,962
Average citations per paper:	70.0	80.8
Breakdown of papers by citations:		
Renowned papers (500+)	11	11
Famous papers (250-499)	34	34
Very well-known papers (100-249)	99	94
Well-known papers (50-99)	117	112
Known papers (10-49)	261	232
Less known papers (1-9)	158	98
Unknown papers (0)	49	25
Additional Citation Metrics [?]		
h-index [?]	116	115

>160’000

records claimed

(out of 1million)

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Test of the \boldmath{τ}-Model of Bose-Einstein Correlations and Reconstruction of the Source Function in Hadronic Z-boson Decay at LEP
The L3 Collaboration (Achard, P. et al.)
arXiv:1105.4788, CERN-PH-EP-2011-080, Eur.Phys.J. C71, 1648, 2011; 10.1140/epjc/s10052-011-1648-8 Date-Upd:2011-08-26
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⊕ Rev.Mod.Phys.,62,553 — Intensity interferometry in subatomic physics - Boal, D.H. *et al.* Rev.Mod.Phys. 62 (1990) 553-602

⊕ nucl-th/9804026 — The Physics of Hanbury Brown-Twiss intensity interferometry: From stars to nuclear collisions - Baym, Gordon Acta Phys.Polon. B29 (1998) 1839-1884 . nucl-th/9804026

⊕ hep-ph/0110088 — Bose-Einstein correlations in Z fragmentation and other reactions - Kittel, Wolfram Acta Phys.Polon. B32 (2001) 3927-3972 . hep-ph/0110088

⊕ Phys.Rev.Lett.,3,181 — Pion-pion correlations in antiproton annihilation events - Goldhaber, Gerson *et al.* Phys.Rev.Lett. 3 (1959) 181-183

⊕ Phys.Rev.,120,300 — Influence of Bose-Einstein statistics on the anti-proton proton annihilation process - Goldhaber, Gerson *et al.* Phys.Rev. 120 (1960) 300-312

⊕ arXiv:1005.3294 — Measurement of Bose-Einstein correlations with first CMS data - CMS Collaboration (Khachatryan, Vardan *et al.*) Phys.Rev.Lett. 105 (2010) 032001 . arXiv:1005.3294 [hep-ex] . CMS-QCD-10-003, CERN-PH-EP-2010-010, FERMILAB-PUB-10-171-CMS

Information | References (10) | Citations (2) | Plots

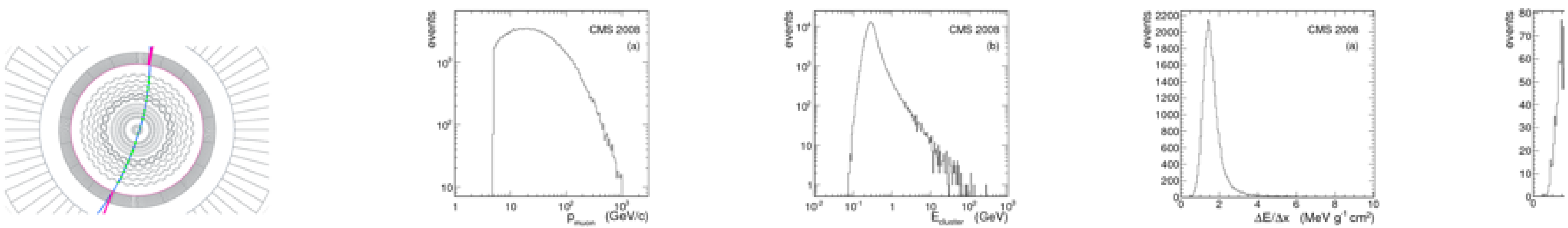
Measurement of the Muon Stopping Power in Lead Tungstate.

CMS Collaboration (Serguei Chatrchyan *et al.*) Show all 2442 authors.
Nov 2009

JINST 5 (2010) P03007
e-Print: **arXiv:0911.5397 [physics.ins-det]**

Abstract: A large sample of cosmic ray events collected by the CMS detector is exploited to measure the specific energy loss of muons in the lead tungstate of the electromagnetic calorimeter. The measurement spans a momentum range from 5 GeV/c to 1 TeV/c. The results are consistent with the expectations over the entire range. The calorimeter energy scale, set with 120 GeV/c electrons, is validated down to the sub-GeV region using energy deposits, of order 100 MeV, associated with low-momentum muons. The muon critical energy in lead tungstate is measured to be 160+5/-6 plus or minus 8 GeV, in agreement with expectations. This is the first experimental determination of muon critical energy.

Keyword(s): INSPIRE: lead: tungsten | muon: energy loss | calorimeter: electromagnetic | cosmic radiation | CMS



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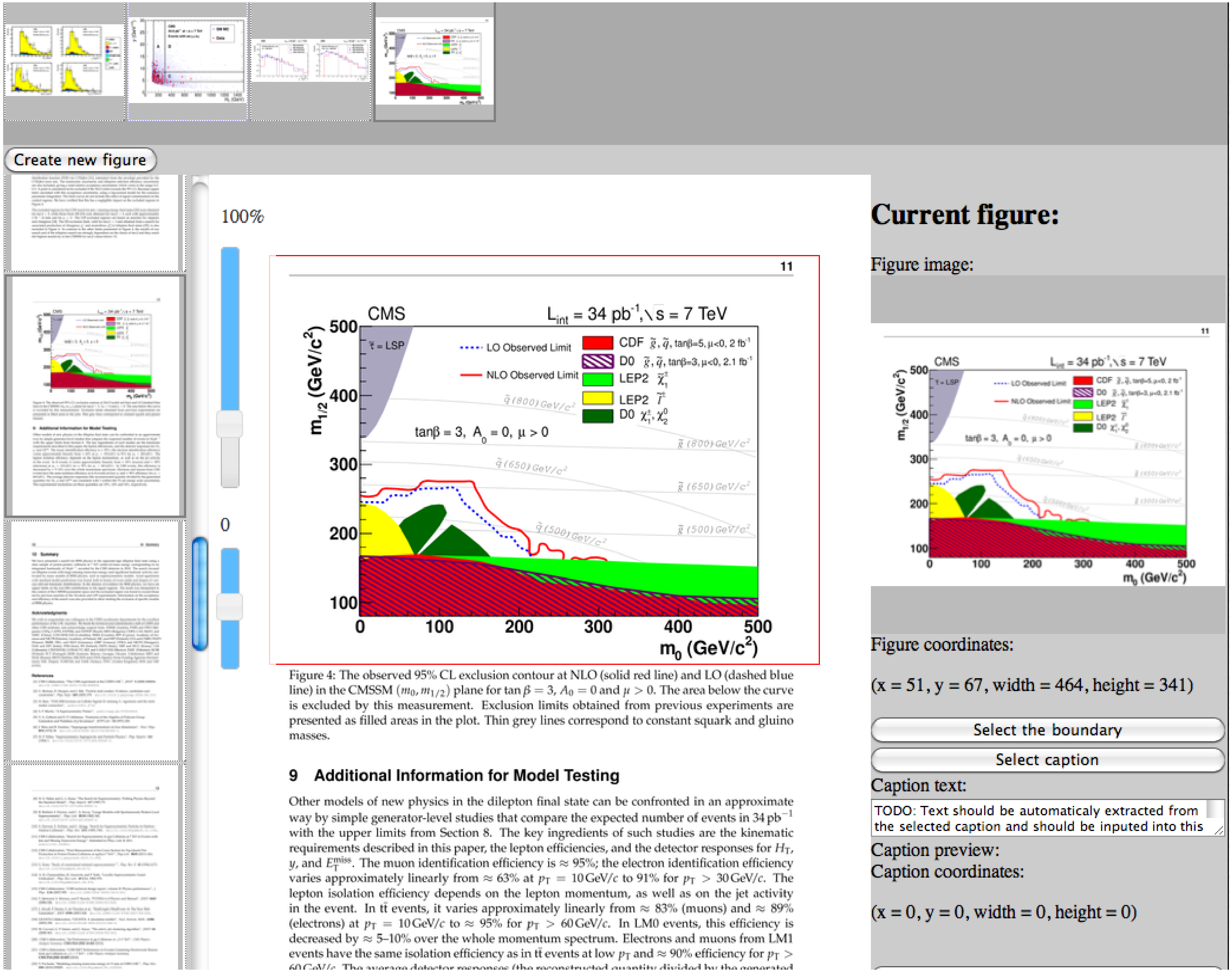
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11
CMS
L_{int} = 34 pb^{-1}, $\sqrt{s}$ = 7 TeV
$m_{1/2}$ (GeV/c^2)
m_0 (GeV/c^2)
$\tilde{\tau}$ = LSP
LO Observed Limit
NLO Observed Limit
CDF $\tilde{g}, \tilde{q}$, tanβ=5, μ<0, 2 fb^{-1}
D0 $\tilde{g}, \tilde{q}$, tanβ=3, μ<0, 2.1 fb^{-1}
LEP2 $\tilde{\chi}_1^{\pm}$
LEP2 $\tilde{l}^{\pm}$
D0 $\tilde{\chi}_1^{\pm}, \tilde{\chi}_2^0$
tanβ = 3, A_0 = 0, μ > 0
Figure 4: The observed 95% CL exclusion contour at NLO (solid red line) and LO (dashed blue line) in the CMSSM $(m_0, m_{1/2})$ plane for $\tan\beta = 3$, $A_0 = 0$ and $\mu > 0$. The area below the curve is excluded by this measurement. Exclusion limits obtained from previous experiments are presented as filled areas in the plot. Thin grey lines correspond to constant squark and gluino masses.
9 Additional Information for Model Testing
Other models of new physics in the dilepton final state can be confronted in an approximate way by simple generator-level studies that compare the expected number of events in 34 pb^{-1} with the upper limits from Section 8. The key ingredients of such studies are the kinematic requirements described in this paper, the lepton efficiencies, and the detector responses for H_T, y, and E_T^{miss}. The muon identification efficiency is ≈ 95%; the electron identification efficiency varies approximately linearly from ≈ 63% at p_T = 10 GeV/c to 91% for p_T > 30 GeV/c. The lepton isolation efficiency depends on the lepton momentum, as well as on the jet activity in the event. In $t\bar{t}$ events, it varies approximately linearly from ≈ 83% (muons) and ≈ 89% (electrons) at p_T = 10 GeV/c to ≈ 95% for p_T > 60 GeV/c. In LM0 events, this efficiency is decreased by ≈ 5–10% over the whole momentum spectrum. Electrons and muons from LM1 events have the same isolation efficiency as in $t\bar{t}$ events at low p_T and ≈ 90% efficiency for p_T >
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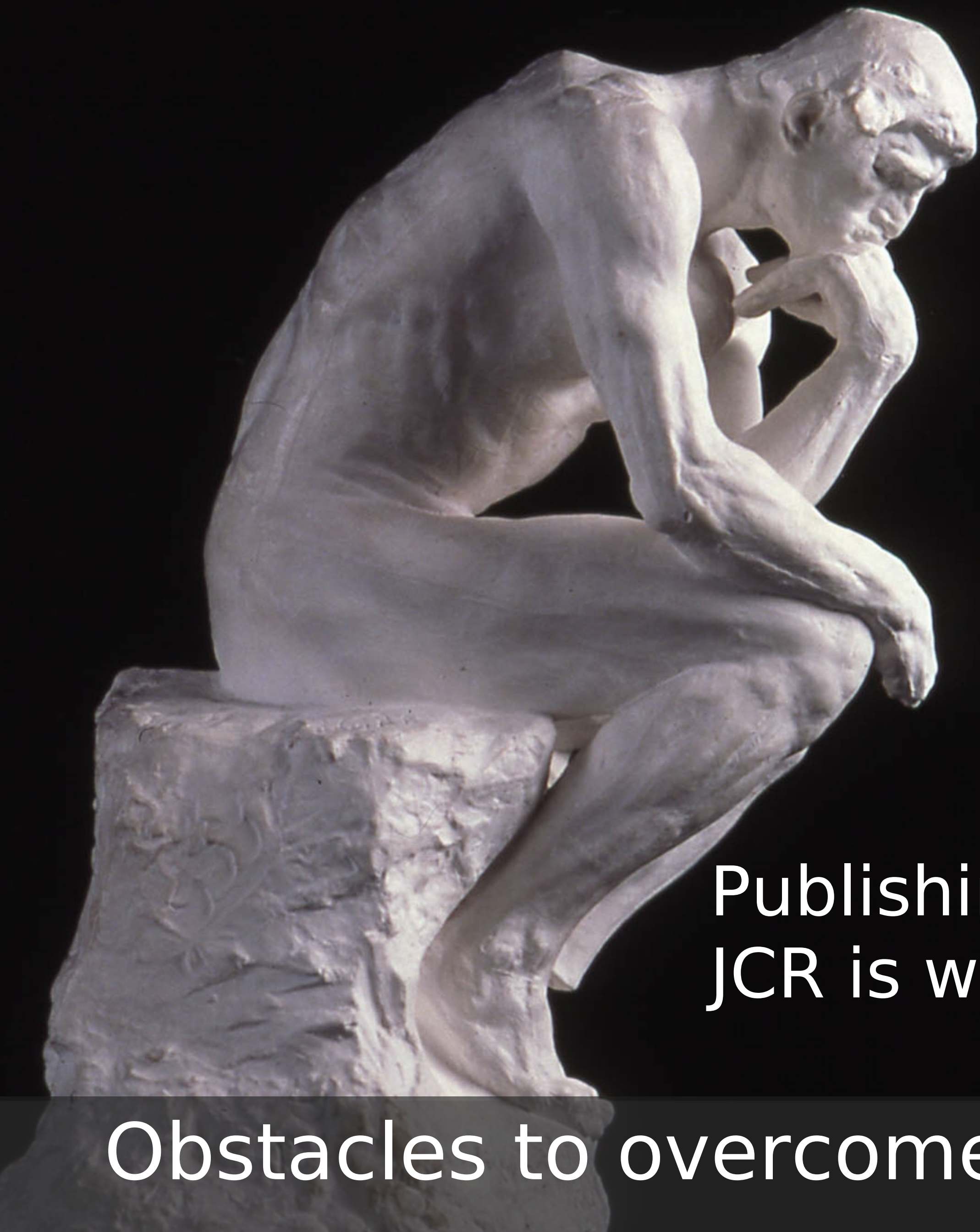
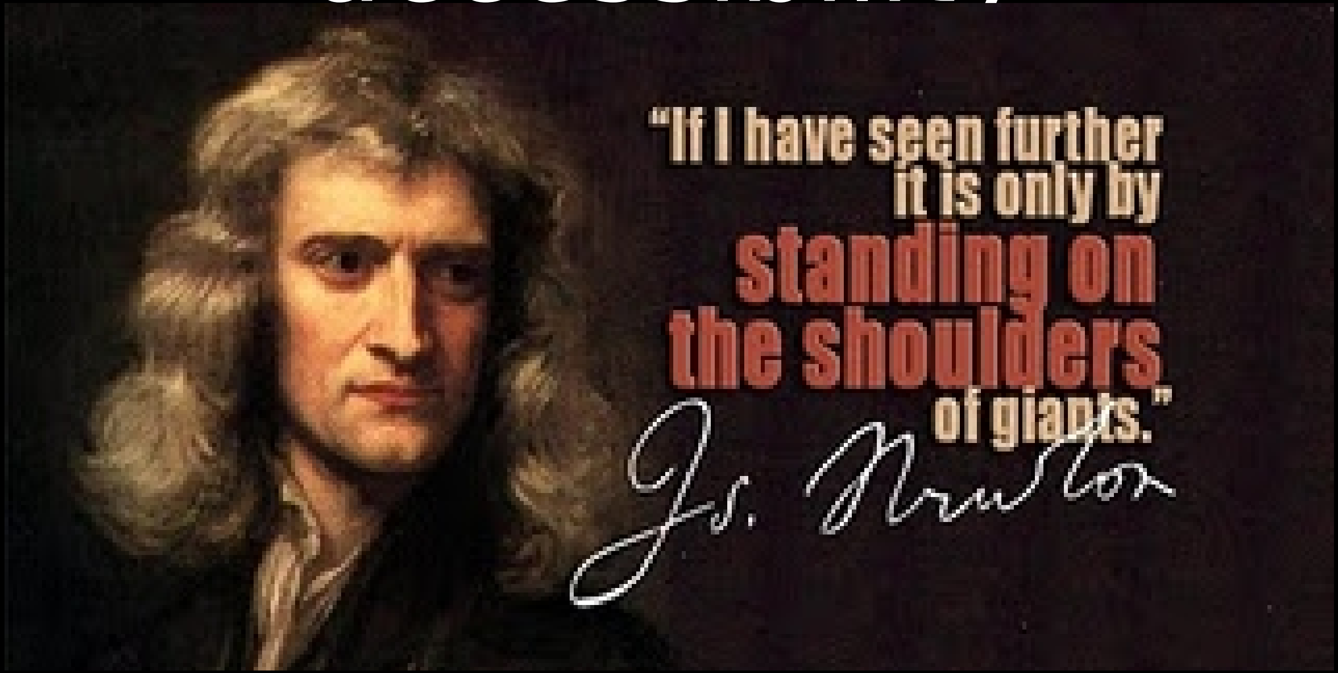
Obstacles to overcome for social media



- Persistent identifiers?
- How to cite?
- Partial results?
- Which incentives?
- Friends or competitors?

Publishing in journals listed in JCR is what one gets credits for

Journals picked because of their potential for long-term accessibility

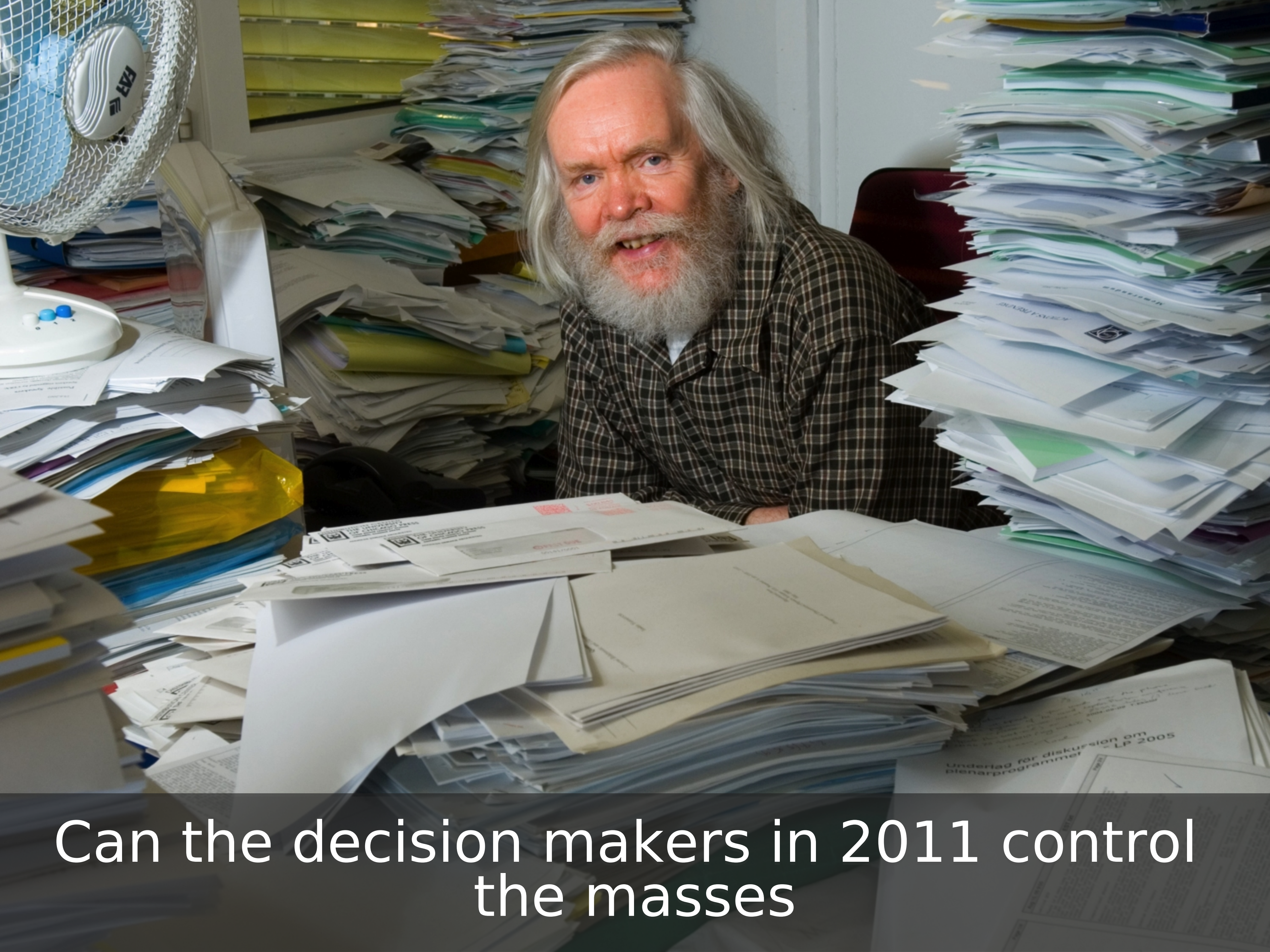


H

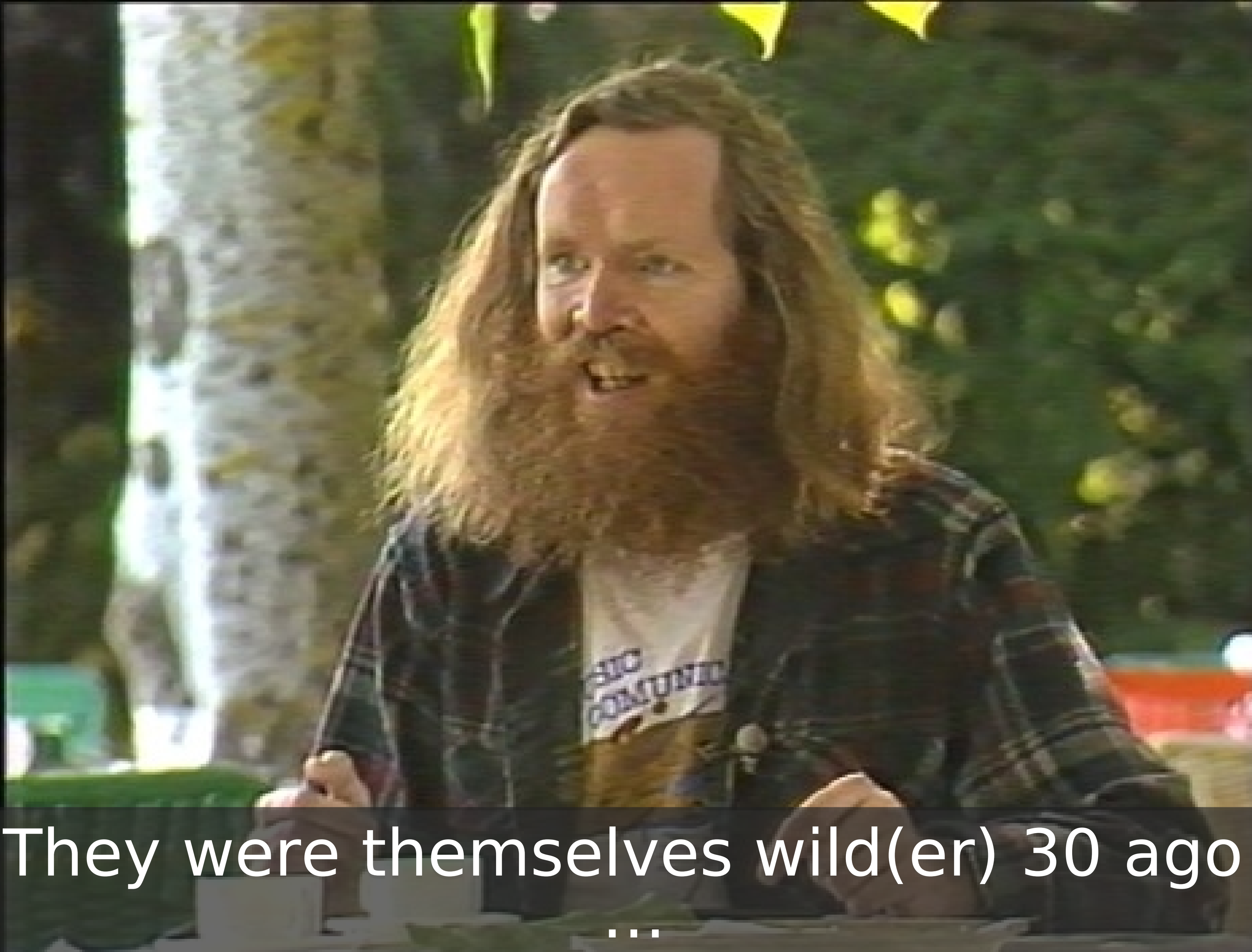
that it exists, be announced?

Thousands of youngsters are involved in the hunt ...

- Facebook?
- Twitter?
- The Language of Bad Physics?
- Seminar?
- arXiv => then the blog sphere will explode?



Can the decision makers in 2011 control the masses



They were themselves wild(er) 30 ago …

Borborigmi di un fisico renitente

SCIENZA E OPINIONI DI FRONTIERA

Grazie per l'incoraggiamento, comunque!

1 DICEMBRE 2011

Ref.TH.2093-CERN

A PHENOMENOLOGICAL PROFILE OF THE HIGGS BOSON

John Ellis, Mary K. Gaillard *) and D.V. Nanopoulos +)

CERN -- Geneva

The situation with regard to Higgs bosons is unsatisfactory. First it should be stressed that they may well not exist. Higgs bosons are introduced to give intermediate vector bosons masses through spontaneous symmetry breaking. However, this symmetry breaking could be achieved dynamically [10] without elementary Higgs bosons. Thus the confirmation or exclusion of their existence would be an important constraint on gauge theory model-building. Unfortunately, no way is known to calculate the mass of a Higgs boson, at least in the context of the popular Weinberg-Salam [11] model, and experimental lower limits [12)-14)] on its mass are

We should perhaps finish with an apology and a caution. We apologize to experimentalists for having no idea what is the mass of the Higgs boson, unlike the case with charm [3),4)] and for not being sure of its couplings to other particles, except that they are probably all very small. For these reasons we do not want to encourage big experimental searches for the Higgs boson, but we do feel that people performing experiments vulnerable to the Higgs boson should know how it may turn up.

Potrebbe non esistere. Non c'è modo di calcolarne la massa, e ve ne chiediamo scusa. Non vogliamo incoraggiare grandi ricerche sperimentali, ci sentiamo soltanto in dovere di mettervi in guardia.

Grazie, sul serio.

J. Ellis, M.K. Gaillard, D. Nanopoulos, A phenomenological profile of the Higgs boson, Nucl. Phys. B 106 , 2 (1976) 292-34

Articoli recenti

- Grazie per l'incoraggiamento, comunque!
- Ogni scoperta si presenta sempre come l'incapacità di escludere un'ipotesi (ovvero, lo stato della ricerca del bosone di Higgs)
- OPERA conferma la misura di neutrini (potenzialmente) superluminali
- Come si rivela il passaggio di un neutrino?
- 5 anni
- LHCb vede i primi indizi di nuova fisica a LHC?
- Degli ebook scaricati in rete, e di "come funziona LHC?"
- La scienza non serve a niente
- La Konditorei del Cafe Pushkin
- Il CERN manda pacchetti di neutrini molto più corti verso OPERA

Ripescati (a caso) dalle viscere

- Qualcuno ha visto il bosone di Higgs?
- La specializzazione va bene per gli insetti
- Letture amene per il weekend
- Un italiano vero
- LHC startup, in diretta dal CERN

Cerca

Per cercare, scrivi e premi invio

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- Famiglia
- Fisica
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- Letture e scritture
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- Mezzi e messaggi
- Militanza
- Scienza e dintorni
- Strade e sentieri
- Vita di frontiera
- Zen da taschino

Chiacchiere in corso

- **Grazie per l'incoraggiamento, comunque!**
  - Claudio E: Ocram ha sicuramente ragione, però il fatto di avere una vita sessuale triste e...
  - Ocram: Smarco esiste, ovviamente, semplicemente non si chiama Smarco, ma Ocram. Ocram si arrabbia...
  - Claudio E: ci siamo...
  - Dos: ma chi scopre che NON esiste riceve

Thank you for your attention

Jens.Vigen@cern.ch