



Collaborative Tools Summary

Conveners:

Steven Goldfarb – University of Michigan

Peter Hristov – CERN

Tony Johnson – SLAC

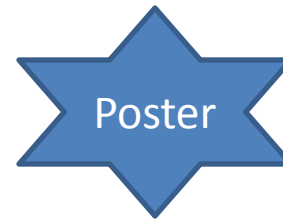
Collaborative Tools Summary

- Statistics

- 2 sessions 10 Presentations

- 18 Posters

- Which haven't happened yet



- Major Topics

- Collaboration Documentation and Outreach

- Long Term Data Preservation

- Collaborative Web Tools

- Video Conferencing



Collaboration Documentation and Outreach

- **A New Information Architecture, Web Site and Services for the CMS Experiment – *Lucas Taylor***
- **Project Management Web Tools at the MICE experiment – *Linda Coney***
- **Talking Physics: Can Social Media Teach HEP to Converse Again? – *Steven Goldfarb***

A New Information Architecture, Web Site and Services for the CMS Experiment – *Lucas Taylor*



A printed pile of all CMS documents that are already in a managed system
= 1.0 x (Empire State building)

Plus we have almost the same amount spread all over the place (PCs, afs, dfs, various websites ...)



No. of CMS Documents, May 2012

Document database	379,219
Indico (Meetings)	205,206
DocDB (Miscellaneous documents)	128,948
CDS (Photographs)	12,252
CDS (Papers, reports, notes)	11,720
EDMS (Engineering drawings & data)	8,105
CADI (Papers & notes in preparation)	7,513
CINCO (Conference contributions)	5,475
Wiki or file system	325,957
Twiki (Web attachments)	118,644
Twiki (Web pages)	25,820
User disks (Misc. PDF, tex, MS office)	100,000
Group afs (Misc. PDF, tex, MS office)	81,493
Grand Total	705,176

- 
- > 50% of documents are not in a document database
 - > 500 “official” CMS websites
 - No coherent user interface
 - No overall navigation
 - No overall search
- 

• Scripts

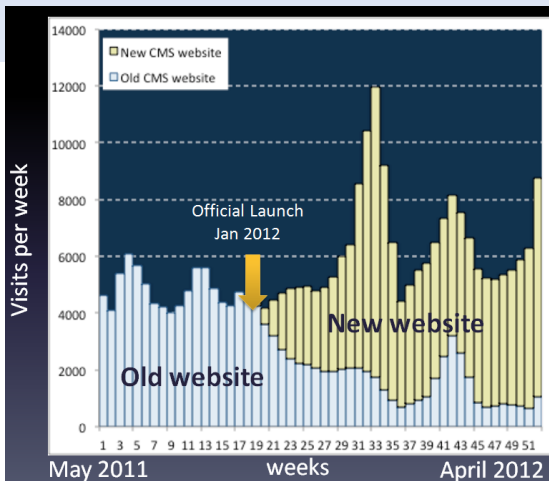
- Automate document location and meta-data extraction

• Drupal

- Content Management System
- Standard Templates
- Embedded IFrames

• Work

- 1 FTE – 18 months



The screenshot shows the CMS website interface. At the top, there is a navigation bar with links like Dashboard, Content, Structure, Appearance, People, Modules, Configuration, Reports, and Help. The user is logged in as Lucas Taylor. Below the navigation bar, there are tabs for 'PUBLIC WEBSITE' and 'COLLABORATION WEBSITE'. The main content area is titled 'Physics' and features a news section with several articles about LHC discoveries. A countdown timer for 'ICHEP 2012' shows 48:21:03:43 remaining. To the right, there is a '2012 Integrated Luminosity' graph showing the total integrated luminosity in fb⁻¹ over time. Below the graph, there are sections for 'Results and Publications', 'User Support', and 'Historical links'. A sidebar on the right contains 'Physics Links' with categories like Meetings, At Work, Documents, and People.

Using Redmine for Project Management on MICE -- Linda R. Coney



- **Need**
 - Ability to easily communicate within global collaboration
 - Coordinate between collaborators separated by distance and time
 - Develop schedules
 - Task assignment
 - Develop institutional memory/history
- **Solution**
 - Redmine
 - Open-source project management tool
 - Written in Ruby on Rails
 - **Features:**
 - Issue Tracker – with corresponding Gantt chart capability
 - Wiki
 - News, documents & files management
 - Source Code repository viewer (SVN, CVS, Git, Mercurial, Bazaar , Darcs)
 - And more...



Using Redmine for Project Management on MICE

- **Used by:**
 - Online Group
 - Operations Group
 - Speaker's Bureau
 - MAUS – Software Group
 - Executive Board
- **Information – wiki**
 - Overview of group responsibilities and membership
 - Organize regular meetings
 - Computing info – networking, access, equipment
- **Management tool**
 - Organize group efforts
 - Develop milestones and track progress
- **Experience**
 - Matches well with the detail-oriented engineer/physicist
 - Easy to use – widespread participation
 - Better information retention and communication
 - Allows structured tracking of effort
 - Have a searchable record of work

The screenshot shows the Redmine interface for the MICE Online project. At the top, there are navigation links: Home, Projects, Calendar, Help. Below that is the project name 'MICE >> Online' and a set of tabs: Overview (selected), Activity, Issues, Gantt, News, Documents, Wiki, Files. The main content area is titled 'Overview' and contains a paragraph describing the MICE Online Group (MOG) and its responsibilities. Below the text is contact information for Linda Coney. A 'Subgroups:' section lists five subgroups with their descriptions. At the bottom, there is an 'Issue tracking' section showing a summary of open bugs and features.

Home Projects Calendar Help

MICE >> Online

Overview Activity Issues Gantt News Documents Wiki Files

Overview

The **MICE Online Group (MOG)** creates, maintains, and ensures proper use of all tools (hardware, software, documentation) within the MLCR (MICE Local Control Room and Rack Room) that allow the experiment to efficiently record high quality data. We are responsible for Data Acquisition (DAQ), Controls and Monitoring (C&M), Online Monitoring and Reconstruction, Data Transfer, Networking, and MLCR Computing. We also interface closely with systems related to the Online sector including MICE Operations, Offline Software, and Computing.

If you are interested in joining our effort, please contact **Linda Coney** (lconey@fnal.gov).

Subgroups:

- **DAQ (Yordan Karadzhov)** – Controls taking & recording of all data from the MICE experiment, including all particle ID detectors, tracking detectors, and beam line diagnostic tools. This subgroup is responsible for all hardware within the MLCR, the DATE DAQ software, MICE trigger system, and unpacking software.
- **Controls & Monitoring (Pierrick Hanlet)** – Controls all MICE systems including the target, all conventional and superconducting beam line magnets, particle ID detectors, tracking detectors, and cooling channel components. Monitoring of Hall environment and equipment function during data-taking is provided by the Alarm Handler, and the Archiver saves a record of all monitored systems and run conditions. C&M also provides an interface with the Configuration Database to retrieve pre-selected run configurations and to save new configurations.
- **Online Monitoring** – Provides an immediate, low-level diagnostic monitoring capability for all DAQ hardware. Monitors DAQ performance and allows individual channel-by-channel assessment of detector behavior.
- **Online Reconstruction (Linda Coney)** – Provides real-time physics information during data-taking, immediate feedback to experimenters, and a first look at analysis quantities. Includes a fixed set of histograms filled during data-taking for checks of data quality, beam dynamics, and detector function. Necessarily interfaces with the MICE Offline Software.
- **MLCR Computing and Network (Craig Macwaters)** – Maintains all DAQ and C&M computers, both wired and wireless network in the control room, and controls access to these machines in accordance with RAL computing security guidelines.
- **Data Transfer (Henry Nebrensky)** – Allows efficient and automatic movement of MICE data sets and associated Online Monitoring & Reconstruction plots out of the MLCR for permanent storage.

Issue tracking

- Bug: 10 open / 29
- Feature: 28 open / 63

Talking Physics: Can Social Media Teach HEP to Converse Again? – Steven Goldfarb



Who uses Social Media?



So you want to be the new Brian Cox? ...
How to become a celebrity academic
Broadcasters are looking for academics who can fascinate and sparkle. How do you get in on the action?

Louise Tickle
guardian.co.uk, Monday 14 May 2012 19:45 BST
Comments (43)

Share (129)
Tweet (70)
+1 (2)
Email

Article history

Recomenda
23
Tivitear
82
Enviar
Compartir
Enviar
Imprimir

El ministro español de Economía, Luis de Guindos, ha pedido al Banco Central Europeo que ayude en la valoración independiente de la cartera crediticia de la banca española, la cual espera tener terminada en menos de dos meses pese a que la semana pasada calculaba que iba a durar entre tres o cuatro meses.

"El Gobierno decidió nombrar dos evaluadores independientes para analizar la cartera de los bancos españoles y nos pidieron (en el Eurogrupo) acelerar al máximo los trabajos, y por supuesto el Gobierno español está absolutamente abierto a ello", e incluso ha pedido que el BCE "se involucre" en la valoración, ha dicho Guindos hoy a su llegada a la reunión de ministros de Economía de la UE en declaraciones recogidas por Efe.

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文字サイズ: 小 中 大

ツイートする シェアする チェック ?

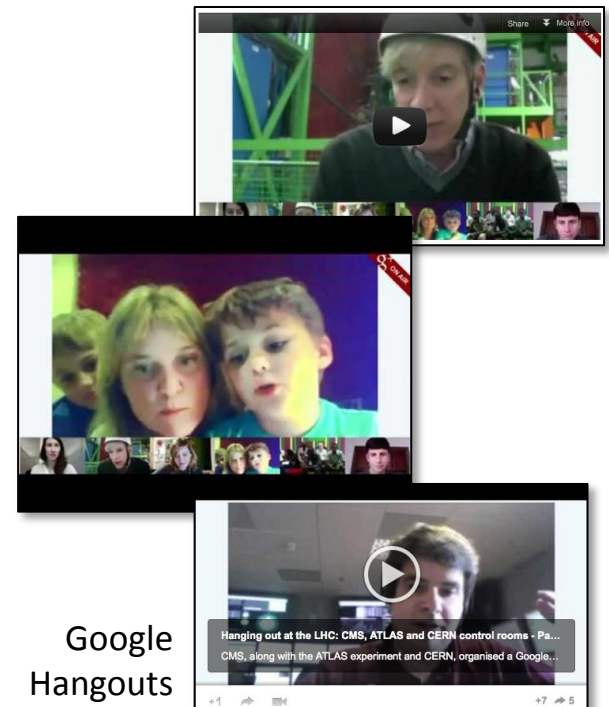
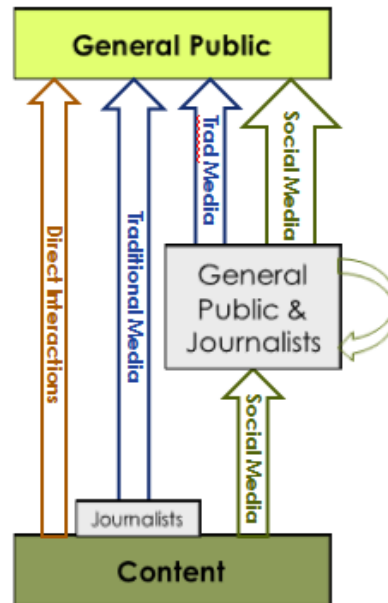
※クリックするとNHKサイトを離れます。

The Media and the Public



Talking Physics: Can Social Media Teach HEP to Converge Again?

- Original Recipe
 - Create Content
 - Serve on Platform
- New Step
 - Communicate to Social Media
- Case 1: Public Picks it up
 - Shares with more public
 - Shares with media
- Case 2: Media Picks it up
 - Shares with public
 - Shares with more media



Google Hangouts

Social Media: #CHEP2012

CHEP + Twitter + (Live video streaming) =
More interactivity during plenary talks?

-  **Ken Bloom** @kenbloomunl 8h
Fons: "this compiler gives great error messages." I'd rather that I didn't have any errors. [#chep2012](#)
Expand
-  **CHEP 2012** @chep2012 15h
Join us at Skirball for Day 3 plenary sessions, then (after poster setup) enjoy one of the conference tours tinyurl.com/78evvp2
[#chep2012](#)
[View media](#)
-  **Steven Goldfarb** @stevengoldfarb 17h
It's not waiting if you're drinking - Jim Shank @ [#chep2012](#)
Expand
-  **PerilousApricot** @PerilousApricot 21h
"I think I'm not gonna make it a late night tonight" - @stuartwakefield.
Looks like team USA won! [#chep2012](#)
[from Manhattan, NY](#)
-  **Steven Goldfarb** @stevengoldfarb 23h
A comparison of the long-term preservation of [#data](#) for analysis with that of [#pizza](#) for eating - Yves Kemp @ [#CHEP2012](#)
pic.twitter.com/PYSAJShd
[View photo](#)
-  **Ken Bloom** @kenbloomunl 23h
You knew this would happen: "[@chep2012](#): Important announcements: paper submission deadline moved back...."
[#chep2012](#)
Expand
-  **CHEP 2012** @chep2012 23h
Important announcements: paper submission deadline moved back, poster sessions & voting, companion tickets: chep2012.org/general-update... [#chep2012](#)
Expand
-  **Mikhail Titov** @skym0n 22 May
Poster session at [#chep2012](#) @ Kimmel Center For University Life
instagr.am/p/K8SLSnt5OF/
[View photo](#)

ATLAS Virtual Visits

- Video Conference between physicists in the ATLAS Control Room and the public
- Remote tour of the Control Room
- Candid discussion of current events in the LHC, particle physics and science
- Public webcast of the event to interested classmates, parents, teachers,...
- Recording of the event for future reference in the classroom and at home
- New tool for conversing with the public, anywhere

ATLAS Virtual Visits

Welcome

Share on

The ATLAS Experiment at CERN is one of the largest most complex scientific instruments ever constructed. It is designed to explore the inner universe, advancing our understanding of the basic building blocks of nature.

Three thousand physicists from 175 institutions in 38 countries around the world participate in ATLAS. When the LHC is in operation, up to 800 million protons collide every second inside the detector. ATLAS Virtual Visits gives the public a unique opportunity to be part of this great scientific adventure.

Using web-based video conferencing tools, participants talk with an ATLAS physicist, receive a tour of the control room, and get answers to their questions.

Next Event:

New York
Fri, 18 May



Future Events

A list of upcoming Virtual Visits.



Past Events

A selection of ATLAS Virtual Visits from all over the world



Technical Requirements

All you need to know to organise your own ATLAS Virtual Visit



ATLAS Experiment

Discover one of the world's greatest scientific adventures



ATLAS Live

The web cast of ATLAS Experiment



Visit CERN

Come and see inside the world's largest particle physics laboratory



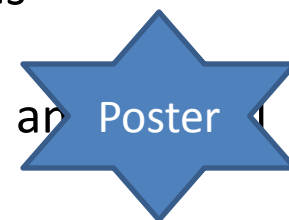
S. Goldfarb, University of Michigan, Poster Session 2 (118)

Poster

Poster Title - Maintaining and improving the training program on the analysis software in CMS

Sudhir Malik – Univ. of Nebraska/ Fermilab (LPC), Felix Hohle (RWTH Aachen), Kati Lassila-Perini (Helsinki Inst. Of Physics, Finland)

- CMS collaboration challenge – 3500 users, 5 continents, 200 institutes, multiple time zones, complex software and analysis tools, tap every user's physics talent
- CMS has implemented a successful training model that provides an organised structure to support and engage users in physics analysis
 - The effort is growing stronger and evolving
- Tutorials organised regularly to learn various official analysis tools
 - Physics Analysis Toolkit, Grid, Visualisation, Statistics
 - Tutorials of 1-day to 1-week duration, hand-on
- Hold CMS Data Analysis Schools (CMSDAS) multiple times a year – USA/Italy/Taiwan/Brazil
 - Hands on physics analysis learning from experts
- Motivated teams formed around training
- Makes CMS documentation robust
- 800-1000 people trained in last 3 years
- Made impact in engaging the collaboration to contribute to physics
- Synergy between training program and growth of LHC Physics Centres
 - LPC (FNAL), LPCC (CERN), Terascale (DESY)
 - These centres act as training hubs, catalyst for physics learning and exchange of new ideas





Collaborative Web Tools

- **The Workflow of LHC Papers** – *Ludmila Marian*
- **Indico: CERN Collaboration Hub** -- *Pedro Ferreira*
- **Electronic Collaboration Logbook** – *Igor Mandrichenko*

Overview of Invenio -- *Ludmila Marian*



- Integrated Digital Library / Repository software
- A platform of choice for managing documents in HEP
 - also adopted in other fields (medium to big repositories)
- manages 2M of papers, books, photos, videos
- Free software GNU GPL
- Python (mostly), MySQL and Apache
- Based on open standards MARCXML, OAI-PMH, OpenURL, OpenSearch, etc.
- Flexible, scriptable

1990 Electronic distribution of preprints via FTP

2000 CERN Document Server: multimedia material, internal notes

2002 First public release of the Invenio software under GNU-GPL

2007 Collaboration with SPIRES

2009 Collaboration with NASA ADS

2010 Collaboration with arXiv.org

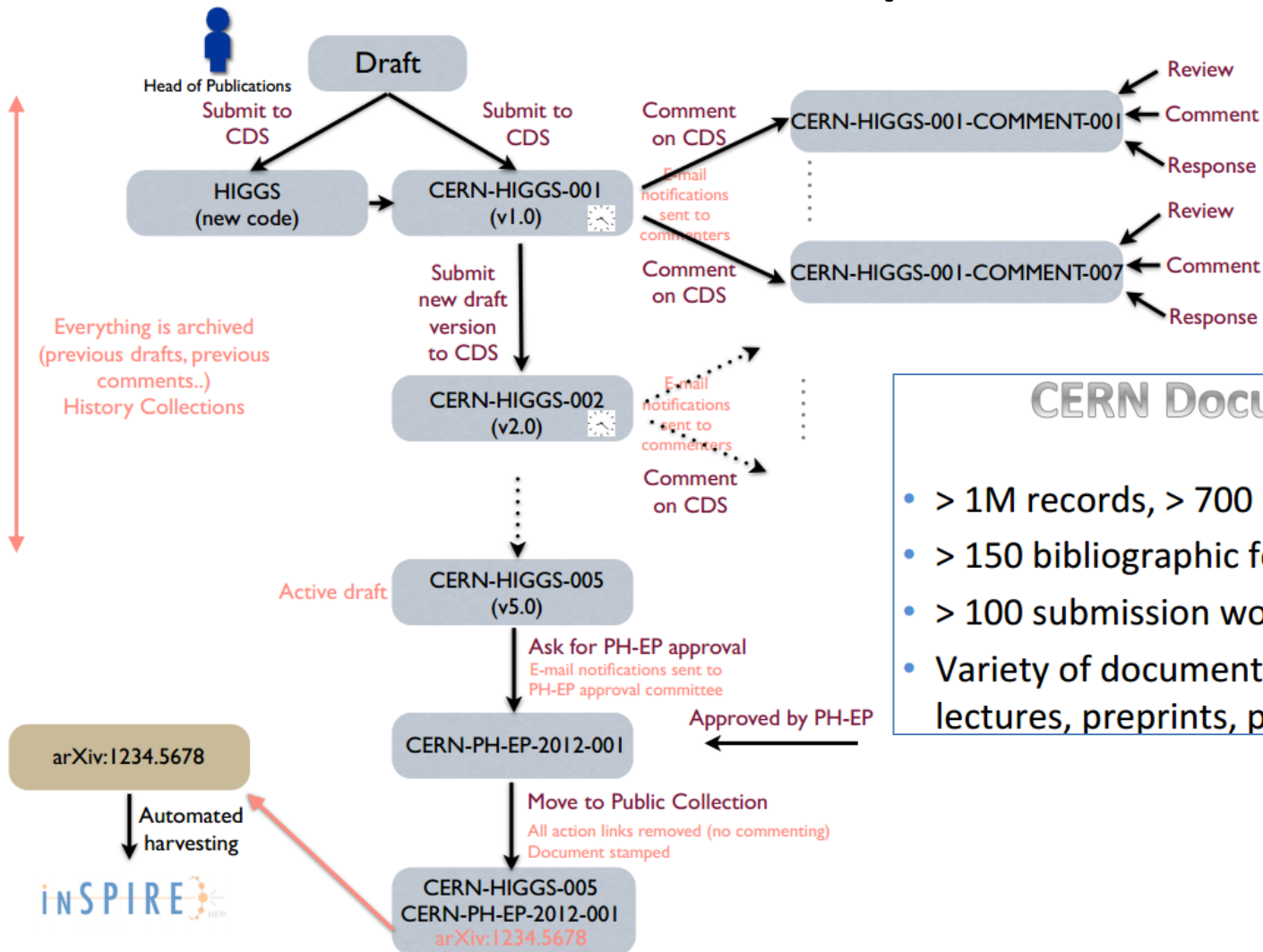
2011 INSPIRE is in full production

2012 Adopted by more than 40 institutions worldwide



INVENIO @ CERN

CERN Document Server: Workflow of LHC Papers



CERN Document Server

- > 1M records, > 700 collections
- > 150 bibliographic formatting templates
- > 100 submission workflows (+ sub-workflows)
- Variety of document types: books, video lectures, preprints, photos, reports, etc.

What's next for CDS

- Improved search for restricted documents when logged in (currently under testing)
- Improved search interface (faceting)
- New generation submission workflows (for more flexibility in configuring and maintaining complex workflows)
- CDS ↔ Drupal

- Full-text searching (using Solr)– *already used in INSPIRE*

1. **Eikonal regime of gravity-induced scattering at higher energy proton colliders.**

W.J. Stirling, E. Vryonidou, J.D. Wells (Cambridge U.). Feb 2011. 22 pp.

Published in *Eur.Phys.J. C71 (2011) 1642*

e-Print: [arXiv:1102.3844 \[hep-ph\]](#)

[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [EndNote](#)
[Abstract](#) and [Postscript](#) and [PDF](#) from arXiv.org; [Journal Server](#) - Eur.Phys.J.

Snippets courtesy of arXiv

... recent results from the D0 collaboration [7]. Recently, the first **LHC results** were presented by the ATLAS 23 and CMS 24 collaborations...

[Detailed record](#) - [Cited by 3 records](#)

2. **Supersymmetric Higgs production in gluon fusion.**

Robert V. Harlander, Franziska Hofmann, Hendrik Mantler (Wuppertal U.). Dec 2010. 36 pp.
WUB-10-35.

Published in *JHEP 1102 (2011) 055*

e-Print: [arXiv:1012.3361 \[hep-ph\]](#)

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

Snippets courtesy of arXiv

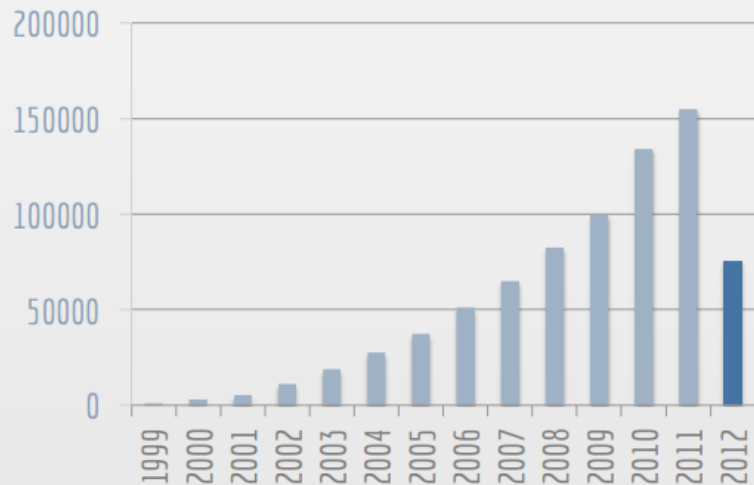
... Refs. [86, 87]. Fig. 12 (a) displays the Tevatron and **LHC results** for the SM4 and the MSSM4 using the SUSY parameters...

Indico: CERN Collaboration Hub -- *Pedro Ferreira*

AT CERN

- ~ 180.000 events
- ~ 700.000 contributions
- ~ 1.000.000 files

CONTRIBUTIONS PER YEAR (START DATE)



An event management web application

Conference Lifecycle

Room Booking

Data Repository

Collaborative tools



Growing Community

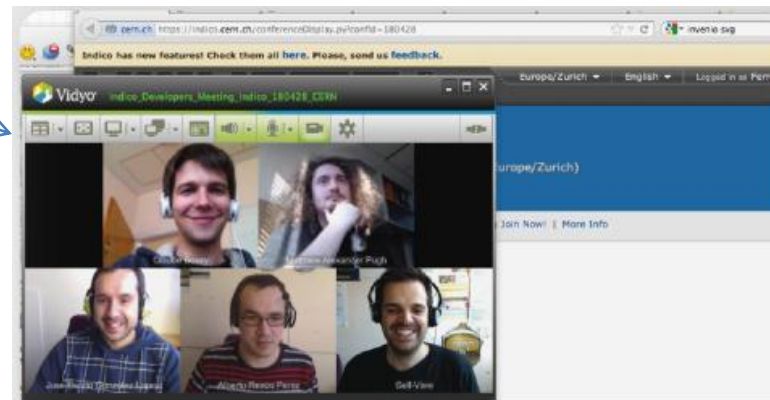
4 Continents

> 100 known servers



Indico: New Features

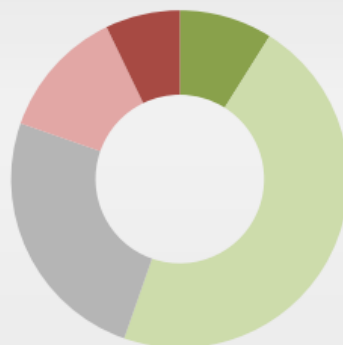
Integration with Collaborative Tools
 Room Map
 Paper Reviewing
 Timetable Drag'n'drop
 Per-event Statistics
 Real-time search updates
 HTTP API
 Security Improvements



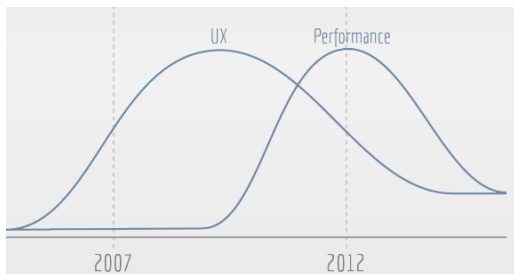
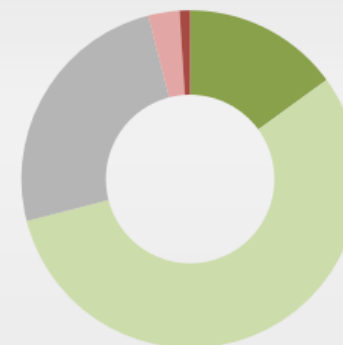
Summer Student Lectures 2012

Jul 02, 2012 - Jul 06, 2012				
Mon	Tue	Wed	Thu	Fri
Jul 02, 2012	Jul 03, 2012	Jul 04, 2012	Jul 05, 2012	Jul 06, 2012
		09:15 to 10:15 Welcome Presentation Introduction to CERN computing services and security + Workshop presentation + Library Service Dr. Ludovic Bellier (CERN), Dr. Hans-Joachim Hees (CERN), M. Savaugh T. (CERN)	09:15 to 10:00 Standard Model (38) Prof. Gopalakrishnan Gurusamy for IHEP, BE, Bangalore, India	09:15 to 10:00 Standard Model (48) Prof. Gopalakrishnan Gurusamy for IHEP, BE, Bangalore, India
		10:21 to 11:11 Standard Model (18) Prof. Gopalakrishnan Gurusamy for IHEP, BE, Bangalore, India	10:15 to 11:00 Introduction to Accelerator Physics (10) Dr. Anand Sankar (CERN)	10:15 to 11:00 Introduction to Accelerator Physics (20) Dr. Anand Sankar (CERN)
		11:08 to 12:13 Standard Model (28) Prof. Gopalakrishnan Gurusamy for IHEP, BE, Bangalore, India	11:11 to 12:00 Statistics Introduction to Statistics (14) Dr. Vivek Singh (IIT Bombay, Mumbai)	11:11 to 12:00 Statistics Introduction to Statistics (24) Dr. Vivek Singh (IIT Bombay, Mumbai)
			12:08 to 12:28 Discussion Session Gopalakrishnan Gurusamy, H. Vivek, H. Vivek	12:08 to 12:28 Discussion Session Gopalakrishnan Gurusamy, H. Vivek, H. Vivek

ARE YOU SATISFIED WITH INDICO? (2007)



ARE YOU SATISFIED WITH INDICO? (2011)

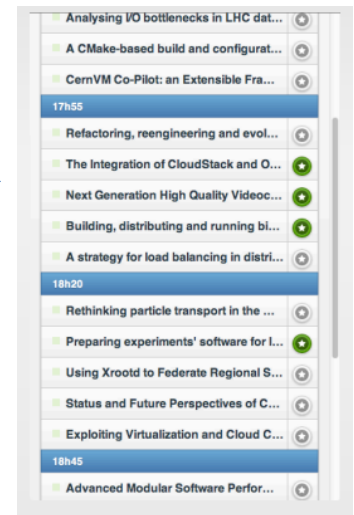


Indico: Plans

- Indico 1.0 to be released later this year
- Indico Mobile – improved support for mobile devices based on Indico's HTTP API

• Interesting discussion of similarities of Indico's paper review features and CDS document flow and possible collaboration

• Hopefully continued over coffee



Electronic Collaboration Logbook --

Igor Mandrichenko

Project Objective and History

- To provide a web-based electronic logbook tool to collaborations and groups at FNAL to support their research activities
- Project started as Control Room Logbook (CRL) for D0
 - Java based, data stored on local disk in the file system
- Web interface added
 - About 20 instances at FNAL
- Rewritten completely in 2010-2011
 - Main reason: store all data in the database
 - New name: Electronic Collaboration Logbook (ECL)
 - Converted all existing CRL data into ECL
 - Currently 24 instances in production
- Shift Scheduler added in 2012

- Apache
- Django
 - Database layer
 - Session persistency mechanism
 - User authentication (local passwords and/or LDAP), password sent over HTTPS
- Jinja2 templates
- Python
- Postgres v9 database
 - Everything, including attached documents and pictures is stored in the database
 - Text indexing package is native since v9

django

The Web framework for perfectionists with deadlines.
Django makes it easier to build better Web apps more quickly and with less code.

 **Fermilab**

Electronic Collaboration Logbook: Features

- Logbook entry
 - Immutable text or form
 - Has timestamp and author
 - Belongs to a category
 - May have picture or document attachments
 - May have one or more tags
 - Comments can be added
 - May have related entries

Example of a Logbook Thread

21262, Mayling Wong-Squires (mlwong), Mon, 05/07/2012 12:48:03 MP9/Vacuum Oven ▼21261

Screen shot of furnace status at room temperature, start of cycle



[status-start.png](#)

Comments:

[Mayling Wong-Squires \(mlwong\) 05/09/2012 12:56:10](#)
Baking the support frame for FRIB QWR

[+ add related entry](#) [+ add comment](#)

21261, Mayling Wong-Squires (mlwong), Mon, 05/07/2012 10:36:15 MP9/Vacuum Oven ▲ 21262

Support frame for FRIB QWR bakeout started - ramp up 5C/min, soak 800C for 10 hours

Comments:

[Mayling Wong-Squires \(mlwong\) 05/07/2012 10:44:25](#)
Correction - ramp up 10C/min, soak 800C for 3 hours

[+ add related entry](#) [+ add comment](#)

Picture thumbnail

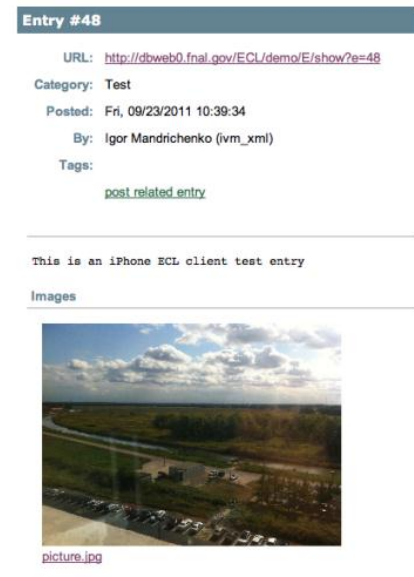
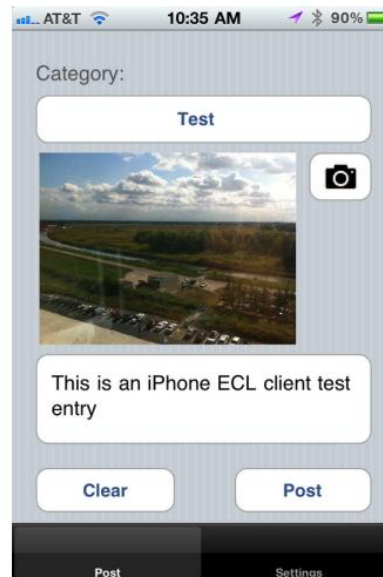
text

header

comments

related entry

- Redundant Web Servers
- Restful Interface
- Mobile App Support
 - Android and iPad
- Associated Shift Scheduler





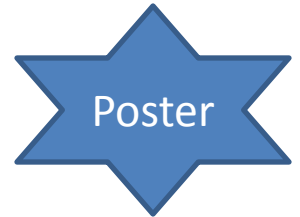
Search server



Crawler



Web interface



Filter by subcollection:

- CCJ (225)
- Offline Wiki (80)
- Publish (76)
- Drafts (44)
- Logbook (39)
- CCF (1)

Enter your keywords

Cu+Cu



Search results

PWG_MPC(Jhon) Run5 **Cu+Cu** 200GeV pro.84 run5**CuCu**62GeV_pro72 EWG_MB(baumgart) Last Modified: May. 23, 2011 K.

<http://ccjsun.riken.go.jp/ccj/doc/phenix-data/localdisk/index.html>

intermédiaire de 63 GeV). Il/elle les comparera avec les mesures précédentes (p+p, d+or, or+or et **cu+cu** à 20

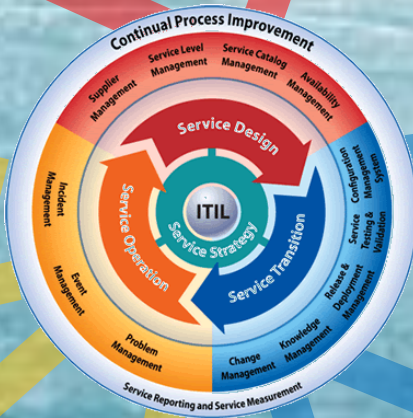
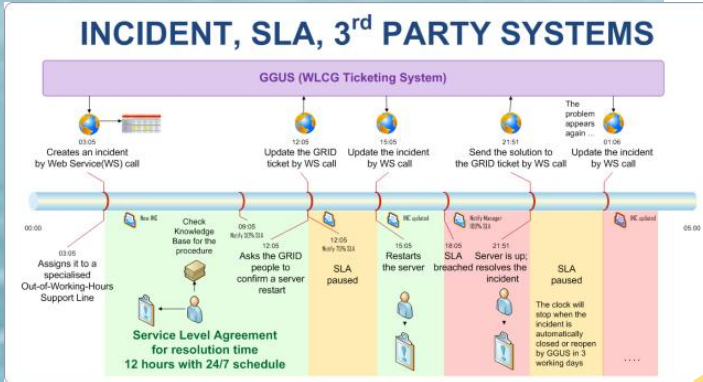
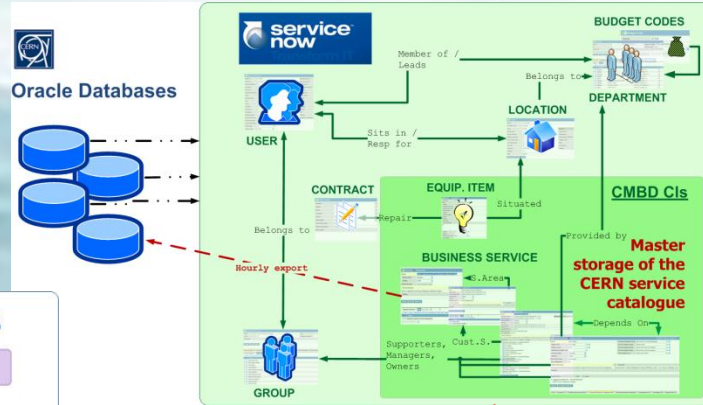
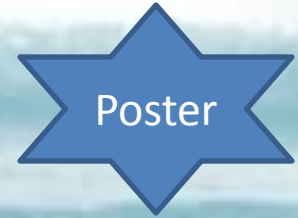
<http://phenix-france.in2p3.fr/These.html>

experiment at RHIC at Brookhaven National Laboratory. In the past three years we have studied AuAu, **CuCu**, PP

<http://www.physastro.iastate.edu/directory/mrosati>

SERVICE MANAGEMENT AT CERN WITH SERVICE-NOW

Zhechka Toteva, CERN-IT/CF



CERN Service Portal
easy access to services at CERN

Home News Navigate Catalogue Contacts My Profile Site Guide Service Status

Library **Edit**

This service supports the provision of information, in paper and online form, needed for scientific research and any kind of activity supporting the research.

Actions

- Report an incident
- Submit a general request
- The online library catalogue

Information

This service offers:

- Loans of documents owned by CERN Library (in person or through the online Library catalogue) and obtention of documents from external libraries
- Access to online documents and resources: online books, journals, databases
- Reproduction of documents: photocopies, scanning
- Bibliographic information
- Interaction with readers who suggest the purchase of documents and journal subscriptions for the Library collections
- Organization of events: Book Fair and book presentations

Service limitations:

- Readers without a CERN ID can consult documents in the Library, but cannot take them on loan
- For certain categories of documents to be obtained on request (standards and theses) a budget code is required

REQUEST FULFILLMENT

Scenario 2

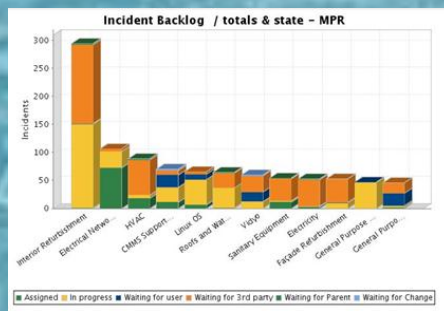
17:10: Creates a request for access to a zone via the CERN User Portal

21:55: Susi Operation 2nd level supporter gives the required access and informs the user and his manager

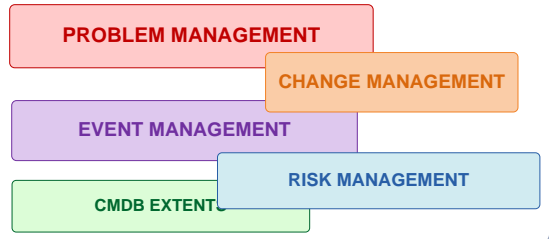
A request created through the CERN portal is served faster than the one created by email because:

- All the information needed is provided in a submission form (record producer)
- It is assigned directly to the people who will serve it

REPORTING



NEXT STEPS



KNOWLEDGE BASE
CERN Service Portal

Home News Navigate Catalogue Contacts My Profile Site Guide Service Status

Knowledge Base Article: KB0000466 **Edit**

This page shows the contents of a Knowledge Base Article. These articles might only show when logged in that is related to your data.

Call I create my own project space in AFS?

Answer

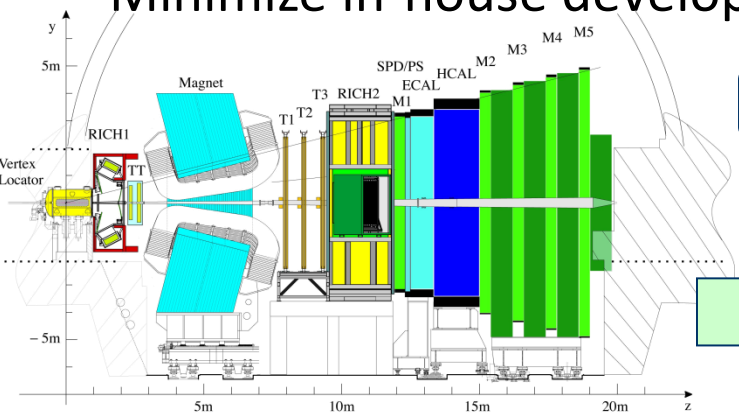
The AFS service supports the creation of dedicated areas in AFS, which are typically mounted into the CERN AFS tree as well as being shared. For these 'private' storage administration rights are restricted from the AFS admin to the project admins. Amongst other things, this involves volume and ACL management as well as dealing with potential issues that are caused by the use of their space. Typical examples for projects are the AT experiments, Alignment projects, software projects and others.

In order to create your own project, please send the following information to AFS support@cern.ch:

- a short project description and a justification to have your own separate project space (rather than getting space from the shared project space)
- the name of the project
- the location of the project (e.g. AT experiments)
- the user who will be the project admin
- how the AFS support is related to the IT Service Desk (SD), when your request is complete with all details above the SD will transfer it to the AFS team in IT department who will proceed to the new project space creation.

Publish Online Information to the World

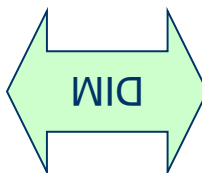
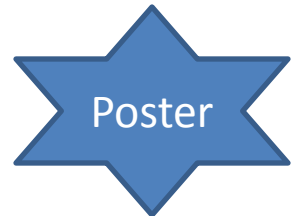
- Comet technology
- In place updating web pages
- Data input from experiment controls system
- Maximize use of off-the-shelf components
- Minimize in-house developments



Datapoint exporter



Publisher



Feeder

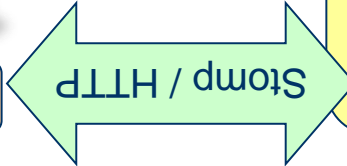


Web Engine

ActiveMQ



Clients



LHCb Page1

LHC Fill 2344 State: INJECTION PROBE BEAM Run 105395 is NOT_ALLOCATED

LHC status summary

Energy:	0 GeV	Avg.Luminosity:	1.81e-1
Intensity [e]:	3.54e+8	-1 Beam 2--:	3.61e+8
Lifetime [h]:	0.00 h	-1 Beam 2--:	0.00 h

Handshakes: Dump Adjust STANDBY INJECTION READY

LHC operator comments:

electrical perturbation in point 1 several systems affected cryo OK for the time being recovering

Shift comments:

Item	Date	Author	System/Run	Operator message
48297	06-Dec 12:20	Comments	LHC	electrical perturbation in point 1 several systems affected cryo OK for the time being recovering
48396	06-Dec 12:02	Comments	LHC	electrical glitch on the network lost several sectors
48395	06-Dec 11:43	Comments	LHC	preparing Quench test at flat top injecting pilot
48394	06-Dec 10:59	Comments	LHC	first scraping test at injection ~ 15mn then Quench test at flat top

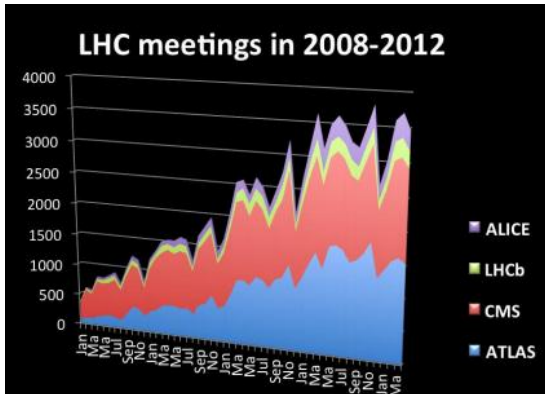


Video Conferencing

- **From EVO to SeeVogh -- Philippe Galvez**
- **Next Generation High Quality Videoconferencing Service for the LHC -- Marek Domaracky**

See Plenary Session by Philippe Galvez from
Wednesday morning

HEP Videoconferencing evolution



VRVS/EVO since 1996
Developed explicitly
for HEP requirements



EVO->SeeVogh
Same framework/people
Enhancements (mobile clients)
New hybrid funding model

Vidyo
Commercial product
Supported /Funded by
CERN IT
Similar Features
(existing/planned)

Readytalk/WebEx/Skype/GotoMeeting/...



Long Term Data Preservation

- **Preparing experiments' software for long term analysis and data preservation -- Yves Kemp**

See Plenary Session by David South from
Wednesday morning

- [The ZEUS data preservation project \(ZEUS Collaboration\) \(#462\)](#)
- [The H1 data preservation project \(H1 Collaboration\) \(#464\)](#)
- [The HERMES data preservation project \(HERMES Collaboration\) \(#482\)](#)

<http://deeptalk.phys.washington.edu>

G. Watts (UW/Seattle)
Poster #386

DeepZoom a Conference

- Works on an Indico agenda or a local directory
- PowerPoint files can have further information embedded in them
- Lays the files out on a floor and you can zoom all the way in or out for quick browsing.
- Arrow keys help to navigate a talk you are interested in. Click on hot spots to get to the talk in the Indico agenda.

Physics Public Plot Explorer

- Scans ATLAS, CDF, CMS, and DZERO for new released plots (http crawler)
- Catalogs them along with meta-data
- Pivot interface allows you to histogram by date, group, as well as apply selection cuts,
- And zoom in on a particular plot and get back to original experiment public page.

Poster

Requires Silverlight

Code and papers: computing publication patterns in the LHC era

Maria Grazia Pia

Data sources

Thomson-Reuters: ISI Web of Knowledge

- CERN subscription: since 1970, conference database not included
- Search by keywords, collaboration name

Journal web sites

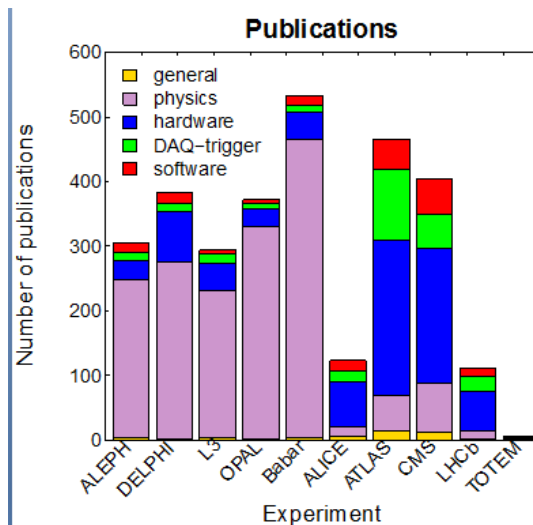
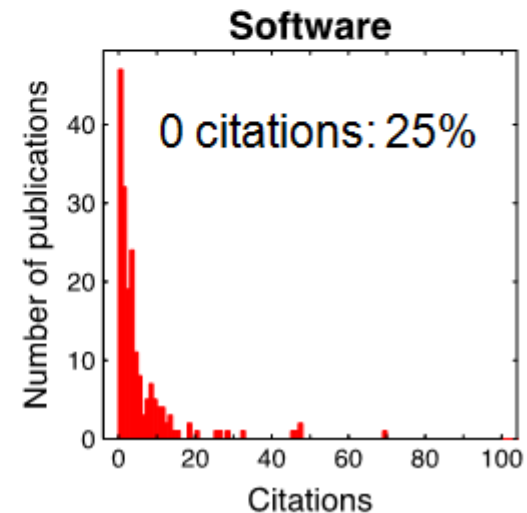
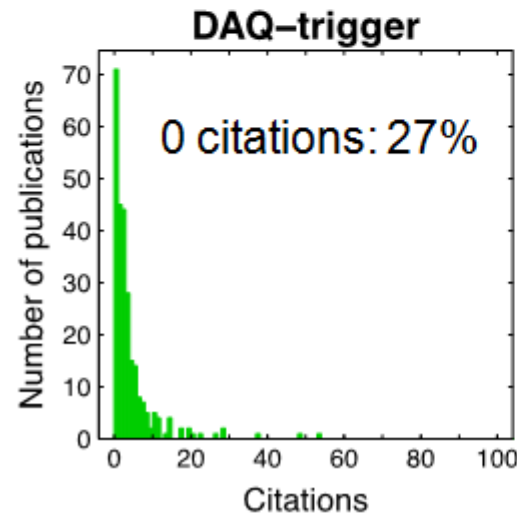
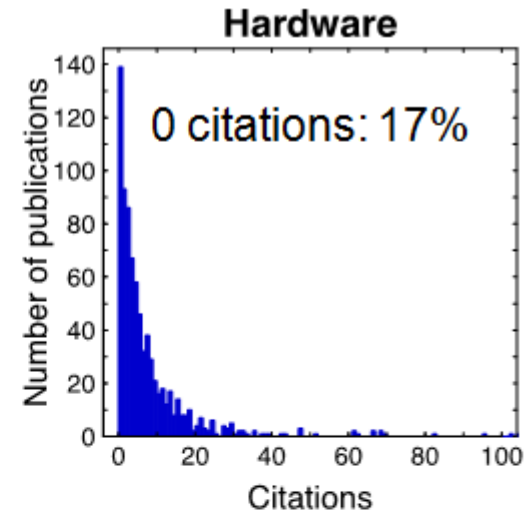
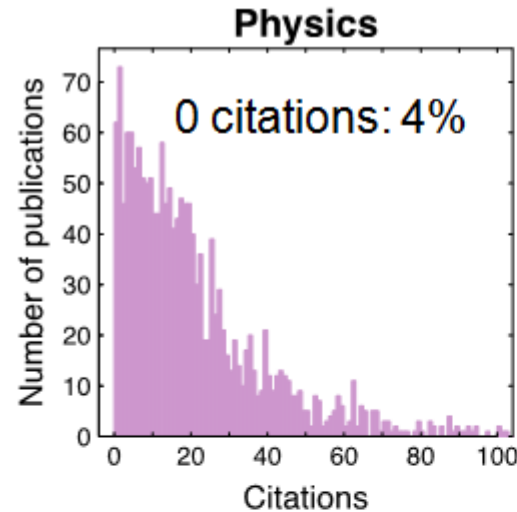
- IEEE TNS
- NIM, Comp. Phys. Comm. (*Elsevier*)
- JINST (*IOP/SISSA*)
- Full-text searches

CERN databases

- CERN Document System
- [Greybook](#)

Years: 1982-2011 (*LEP*), 1992-2011 (*BaBar*, *LHC*)

- Reproducible sample



Code and papers: computing publication patterns in the LHC era

Geant 4

S. Agostinelli et al.

Geant4: a simulation toolkit

NIMA, vol. 506, no. 3, pp. 250-303, 2003

Most cited CERN publication in [WoS](#)

(excluding *Rev. Part. Properties*)

2934 citations

(14 May 2012)

2026 citations

excluding proceedings

J. Allison et al.

Geant4 Developments and Applications

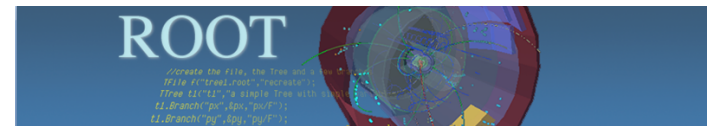
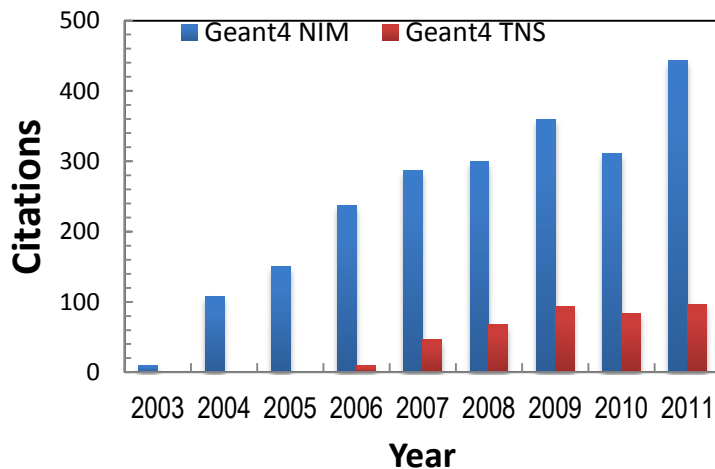
IEEE Trans. Nucl. Sci., vol. 53, no. 1, pp. 270-278, 2006

574 citations

(14 May 2012)

381 citations

excluding proceedings



R. Brun and F. Rademakers

ROOT - An object oriented data analysis framework

NIMA, vol. 389, no. 1-2, pp. 81-86, 1997

AIHENP Workshop **proceedings paper**

540 citations

(14 May 2012)

347 citations

excluding proceedings

I. Antcheva et al.

ROOT - A C++ framework for petabyte data storage, statistical analysis and visualization

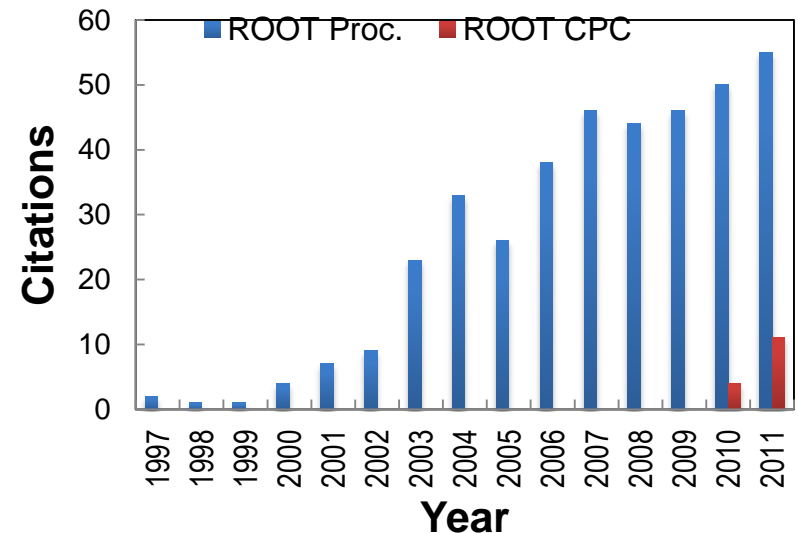
Comp. Phys Comm., vol. 180, no. 12, pp. 2499-2512, 2009

27 citations

(14 May 2012)

20 citations

excluding proceedings



Conclusions

- Collaborative tools session was small but useful and interesting
 - Stimulated lots of discussion
 - Other topics which could usefully be covered
 - Maybe need to be more active about advertising the collaborative tools session to potential speakers
- Remember to visit the collaborative tools posters this afternoon
 - Vote for those you like!

Extra Slides

Potential Future Topics

- INSPIRE
- Use of distributed cloud based web servers
- Restful interfaces, JSON, interoperable web applications
- OAuth, Shibboleth, Crowd, ...
- OpenURL, OpenSearch
- Developing portable web applications for HEP
- Developing secure web applications for HEP
- AJAX, HTML5, jQuery, GWT, ...
- Comparison of Wikis, Portals, Issue Trackers, Source Code repositories, Agile repositories for HEP
- Collaborative visualization and data analysis