

Invenio@HGF – Collaborative repository infrastructure

Open Repositories 2014 - Helsinki

Alexander Wagner¹, Robert Thiele²
for the Collaboration

¹Forschungszentrum Jülich, Zentralbibliothek

²DESY Hamburg, Bibliothek

13. June 2014





- Partner
- Initial TODO
- Accomplishments
- Lessons learned
- Project group

Project Partners



Deutsches Elektronensynchrotron, Zentralbibliothek

≈ 2000 + 3000



Forschungszentrum Jülich, Zentralbibliothek

≈ 5000 + 1000



GSI Helmholtzzentrum für Schwerionenforschung, Bibliothek + Base-IT

≈ 1050



Deutsches Krebsforschungszentrum, Bibliothek

≈ 3000



Maier-Leibniz-Zentrum, Garching

≈ 300



RWTH Aachen, Hochschulbibliothek

≈ 9000

Museum Zitadelle Jülich



Institut für Experimentelle Kernphysik, Karlsruhe



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Open for new Partners!



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Open for new Partners!

Serving now ≈ **20.000** people (+ visitors)

(≈ 260.000 documents + 80.000 Authorities)





GERMAN
CANCER RESEARCH CENTER
IN THE HELMHOLTZ ASSOCIATION

50 Years – Research for
A Life Without Cancer

- Largest german bio-medicine research center
- 3000 people:
1000 researchers inside
- over 90 divisions and groups: research of cancer-producing, risk factors and strategies against cancer
- Replacing of own existing repository system with Invenio@HGF
- Roll out planned for mid of 2015



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Replace existing systems, at GSI build up from scratch.
User-centric design (users aka scientists)



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- 2 Define wording. . . (different institutions!)



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with different data sets and keep them consistent on code level

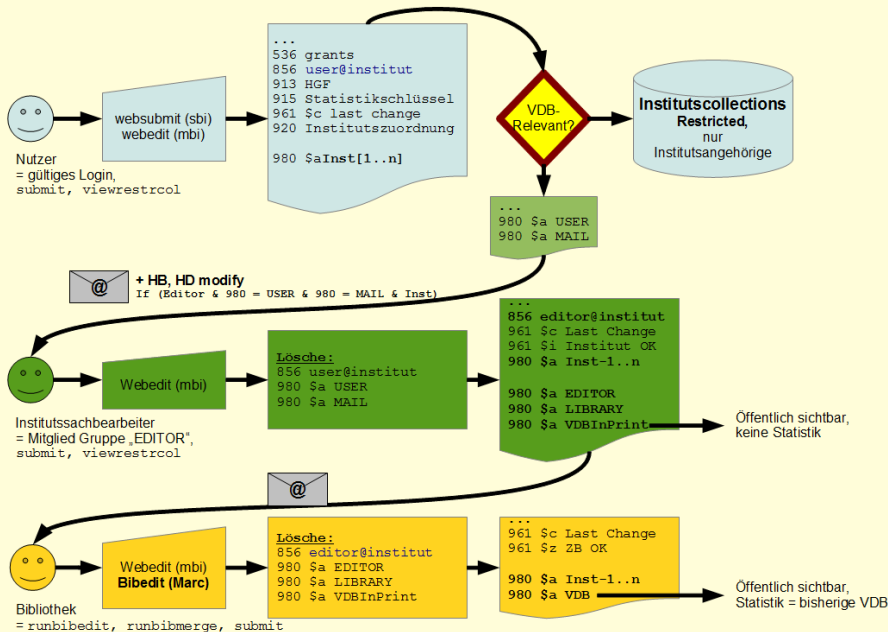


- Design the system around [web based literature management](#)



- Design the system around [web based literature management](#)
- Design a document workflow





- Design the system around [web based literature management](#)
- Design document workflow ([3 steps with privilege escalation](#))
- Design easy ingestion workflow ([websubmit, imports, author disambiguation](#))



Import data ⓘ DOI, arXiv, PUBMED...

ISBN ⓘ 978-3-642-12893-6

Group(s) involved * ⓘ

T: Theorie-Gruppe x

Select or type in name, shortcut (e.g. ATLAS, FS-PE, MKK)

Beamline/Experiment/Facility (Automatically assigns Grants) * ⓘ

514 - Theoretical Particle Physics (POF II: 2010 - 2014) x

Select PETRA beamline, HERA, facility machine,...

Grant name / Proposal No. ⓘ

514 - Theoretical Particle Physics (POF II: 2010 - 2014) x

EU project, FS proposal number (e.g. I-20120768)

Report Number ⓘ

DESY 14-075

Author(s) / Contributor(s) * ⓘ

Bonvini, Marco -> Bonvini, Marco (>DESY / T) Corresponding Author x

Marzani, Simone [Extern] Author ✓ x

Start typing lastname and select...

Title * ⓘ

Resummed Higgs cross section at N^3LL

Title preview:

Resummed Higgs cross section at N^3LL

Journal ⓘ [Type name, issn...; use "" for exact match or fields e.g. title:"nature"]

DOI ⓘ Use Import data for automatic prefill

Volume ⓘ **Issue** ⓘ **Pages** ⓘ e.g. 47-103

Publication Year * ⓘ 2014 **Language** ⓘ Click to select...

Edition ⓘ 5th ed. **Publisher** ⓘ Forschungszentrum Jülich, Verlag

Place of publication ⓘ Jülich

Title Series ⓘ

Abstract ⓘ

We present accurate predictions for the inclusive production of a Higgs boson in proton-proton collisions, via gluon-gluon fusion. Our calculation includes next-to-next-to-leading order (NNLO) corrections in perturbative QCD, as well as the resummation of threshold-enhanced contributions to next-to-next-to-leading logarithmic (NNLL) accuracy, with

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Initial ToDo

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- Design easy ingestion workflow (websubmit, imports, author disambiguation)

Finally we wrote some code...



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- Migrate old data (various, proprietary sources)
- Train the inputters and users (secretaries, scientists, librarians)
- Hook up with content management system(s) (visibility!)



Content management system(s)

Firefox | www.fz-juelich.de/pgi/pgi-1/DE/Service/Publikationen/2013_node.html

Forschungszentrum Jülich - PGI-1 - Pu... | JuSER

Suchbegriff | MITARBEITERSUCHE | DEUTSCH | ENGLISH | Institutswegweiser

Peter Grünberg Institut (PGI)
Quanten-Theorie der Materialien (PGI-1 / IAS-1)

AKTUELLES | FORSCHUNG | LEISTUNGEN | KARRIERE | ÜBER UNS

PGI-1/IAS-1 | Publikationen | Publikationen 2013

Referierte Zeitschriftenbeiträge 2013

SERVICE

Kontakt und Anfahrt | Mitarbeiter | Publikationen

Publikationen 2013

- Referierte Zeitschriftenbeiträge
- Eingeladene Vorträge auf Konferenzen
- Andere Vorträge
- Poster
- Sonstiges
- Publikationen 2012
- Publikationen 2011
- Publikationen 2010

Find: publication | Next | Previous | Highlight all | Match case

Referierte Zeitschriftenbeiträge 2013

Ozdoğan, K.; Şapoju, E.; Galanakis, E.
Stoner-Pauling behavior in LiMgPbS-type multifunctional quantum materials: Half-metallicity, spin-gapless and magnetic semiconductors
Journal of applied physics 113(19), 193903 - (2013) [10.1063/1.4805063]

Aguilar, I.; Friedrich, C.; Blumhager, G.; Bügel, S.
GW study of topological insulators Bi₂(Te,Se)₃, Bi₂(Te,Se)₃, and Sb₂(Te,Se)₃: Beyond the perturbative one-shot approach
Physical review B 88(4), 045206 - (2013) [10.1103/PhysRevB.88.045206]

Betzinger, M.; Friedrich, C.; Bügel, S.
Precise response functions in all-electron methods: Generalized nonspherical perturbations and application to MnO
Physical review B 88(7), 075130 - (2013) [10.1103/PhysRevB.88.075130]

Callen, M.; Caciuc, V.; Kiselev, N.; Abdressel, N.; Bügel, S.
Magnetic Hardening Induced by Nonmagnetic Organic Molecules
Physical review letters 111(10), 106805 - (2013) [10.1103/PhysRevLett.111.106805]

Cottin, M. C.; Bobisch, C. A.; Schaffert, J.; Jnawali, G.; Blumhager, G.; Möller, J.
Interplay between Forward and Backward Scattering of Spin-orbit Split Surface States of Bi(111)
Nano letters 13(6), 2717 - 2722 - (2013) [10.1021/nl400878r]

Decker, Régis.; Brode, J.; Abdressel, N.; Caciuc, V.; Bügel, S.; Wiesend, A.
Atomic-scale magnetism of cobalt-intercalated graphene
Chemical physics 418(1-3), 544-549 - (2013) [10.1016/j.chemphys.2013.04.003]

Photon Science Publications | photon-science.desy.de/research/publications/list_of_publications/index_eng.html

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Deutsches Elektronen-Synchrotron
Research Centre of the Helmholtz Association

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Photon Science Publications in the DESY Publication Database (PUBDOB)

Latest Photon Science publications

Vehicles of inverted hexagonal liquid crystalline lipid phases self-assembled at room temperature
Angew. B., Angelova, A.; Garamus, V. M.; Lesaut, S.
Journal of optoelectronics and advanced materials 15, 211 - 215 (2013)

Structural Differences Explain Diverse Functions of Photosystem Actins
Yabuta, K.; Shiga, S. P.; Desfosses, A.; Andreaski, M.; Kumada, E.-P.; Marinc, S. M.; Shiga, A.; Lippert, S.; Frohne-Hagemann, P.; Böhm-Alm, I.; Sauter, C.; Kamata, I.
PLoS pathogens 10(4), e1004091 - (2014) [10.1371/journal.ppat.1004091]

Closing, expression, purification, crystallization and preliminary X-ray analysis of Ea LacA, a leucine isomerase from *Erwinia amylovora*
Caput, L.; Olsano, M.; Beres, S.
Acta crystallographica (F) 69(5), 570 - 573 (2013) [10.1107/S1744300113010750]

Wavefront preserving channel-cut optics for coherent x-ray scattering experiments at the P10 beamline at PETRA III
Zolotarev, A.; Shabalin, A.; Schulte-Schrepping, H.; Heuer, J.; Spiek, M.; Sergueev, I.; Bessais, I.; Vetterli, J. A.; Spring, B.
Journal of physics: Conference Series 489, 012003 - (2014) [10.1088/1742-6596/489/1/012003]

Use of intermediate focus for grazing incidence small and wide angle x-ray scattering experiments at the beamline P03 of PETRA III, DESY
Spatz, G.; Buft, A.; Chermant, R.; Yu, S.; Körtgens, V.; Müller-Buschbaum, P.; Gölde, U.; Heidekrantz, M.; Roth, S. V.
Review of scientific instruments 85(4), 043901 - (2014) [10.1063/1.4887040]

Formation of Self-Assembled Organosilicon-Functionalized Quinoporphyrone



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- **Get it up and running** (First Light: 11/19/2012)



Accomplishments and status

The collage displays four distinct scientific databases and their search capabilities:

- RWTH Aachen University:** The top-left screenshot shows the official website of RWTH Aachen University, featuring navigation links and a search bar.
- PUBDB (Particle Physics Database):** The top-right screenshot shows the PUBDB search interface, which includes a search bar, filters for 'Particle Physics' and 'Physics', and a list of search results.
- IMPULSE (Institute for Materials Physics):** The bottom-left screenshot shows the IMPULSE search interface, which includes a search bar, filters for 'Materials Science' and 'Physics', and a list of search results.
- GSI Repository:** The bottom-right screenshot shows the GSI Repository search interface, which includes a search bar, filters for 'GSI' and 'Research', and a list of search results.



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- Almost all partners are online



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- Rich websubmit (including **repeatable field** handling)
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- **Authorities**
 - **Generate** (\approx 80.000 recs)
 - **Use** (e. g. JSON returns, statistics...)
 - **Share** (MarcXML OAI-PMH)



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 - **Author identification** (ORCID ready!)
 - **Output formats** (JSON, BibTeX, EndNote... or special formats for our partners)
 - **Reporting** (publication statistics)
 - **Delivery to content management systems**



Analyzing collection "VDB" for WEB year 2013

27216 records in collection "VDB"

2527 records relevant for "WEB 2013"

[illegible]

- Workflow



■ Workflow

- **Webbaskets** (e. g. revision lists)
- **Alerts** (e. g. revision lists)
- **Collections** (e. g. private for institutes)
- **Webmessage** (e. g. correction requests)



- **Workflow**
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- jQuery/jQueryUI (websubmit)



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(Remember: 10+ instances...)



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- Open up for new partners
- Clean up our code and give it back → moving to github



- *Martin Köhler*^a
- *Robert Thiele*^a
- *Katrin Große*^b
- *Stefan Hesselbach*^c
- *Bernhard Mittermaier*^d
- *Anna Fründ*^d
- *Heike Lexis*^d
- *Cornelia Plott*^d
- *Christoph Holzke*^d
- *Alexander Wagner*^d

- *Dagmar Sitek*^e
- *Gudrun Friedburg*^e
- *Jürgen Neuhaus*^f
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- *Björn Pedersen*^f
- *Ulrike Eich*^g
- *Louai Barake*^g
- *Abdoulaye Diallo*^g
- *Roland Rappmann*^g
- *Dominik Schmitz*^g
- *Edmund Wollgarten*^g

^a DESY Library and Documentation; ^b GSI Library and Documentation; ^c GSI Base-IT;

^d Forschungszentrum Jülich, Zentralbibliothek; ^e DKFZ Heidelberg; ^f MLZ, Garching; ^g RWTH Aachen, Hochschulbibliothek

- **Invenio @ HGF - Technical background**

[Talk at Invenio Developer Forum](#)

- **Collaborative tools for an institutional repository**

[Talk at Helmholtz OA Workshop](#)

- **JuSER – Publications Database**

[Introductory course at Jülich](#)

- **JuSER - Autorenhandling**

[Talk at HGF-ORCiD Meeting, Berlin \(in german\)](#)

- **Invenio @HGF – status and perspectives**

[Talk at 2nd Invenio User Group Workshop, \[sic!\], Jülich, Germany](#)

- **The Helmholtz INVENIO Repository Project**

[Talk at SACITIL-2014, Kolkata, India](#)

Thanks!



Robert Thiele
DESY-Bibliothek

Subject Specialist for Photon
Science

Tel.: +49-40-8998-1927
robert.thiele@desy.de

This document is available as

DESY-2014-02793 or FZJ-2014-02848



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