

Publications and Writings:

Magazines / Journals

2011

- K. Hasham, A. Delgado Peris, A. Anjum, D. Evans, S. Gowdy, D. Hufnagel, E. Huedo, J. M. Hernández, F. van Lingen, R. McClatchey, S. Metson, “**CMS Workflow Execution using Intelligent Job Scheduling and Data Access Strategies**”, to appear in IEEE Transactions on Nuclear Science, 2011

2010

- F. van Lingen, D. Evans, S. Metson, S. Wakefield, R. Wilkinson, J. Jackson, D. Spiga, S. Foulkes, A. Afaq, V. Kuznetsov, E. Vaandering, S. Ryu, F. Farina, G. Codispoti, M. Cinquilli, “**Job life cycle management libraries for CMS workflow management projects**”, in J. Phys.: Conf. Ser. 219 042024

2005

- H. Newman, J. Bunn, I. Legrand, S. Low, D. Nae, S. Ravot, C. Steenberg, X. Su, M. Thomas, F. van Lingen, Y. Xia, R. Cavanaugh, S. McKee, “**The Ultralight project: The Network as an Integrated and Managed Resource for Data Intensive Science**”, in Computing In Science and Engineering, Issue on grid computing, 2005
- J. Andreeva, A. Anjum, T. Barrass, D. Bonacorsi, J. Bunn P. Capiluppi, M. Corvo, N. Dardenov, N. De Filippis, F. Donno, G. Donvito, G. Eulisse, A. Fanfani, F. Fanzago, A. Filine, C. Grandi, J. Hernandez, V. Innocente, A. Jan S. Lacaprara, I. Legrand, S. Metson, H. Newman, D. Newbold, A. Pierro, L. Silvestris, C. Steenberg, H. Stockinger, L. Taylor, M. Thomas, L. Tuura, T. Wildish, F. van Lingen, “**Distributed Computing Grid Experiences in CMS**”, in IEEE Transactions on Nuclear Science, 52(4):884-890, August 2005
- S. Ravot, H. Newman, J. Bunn, I. Legrand, F. van Lingen, “**Meeting the Challenges of High-Energy Physics**”, CENIC Interact Winter 2005, Partnership award extract

Conferences

2008

- D. Evans, D. Mason, O. Gutche, S. Metson, S. Wakefield, D. Hufnagel, A. Hassan, A. Mohapatra, M. Miller, F. van Lingen, “**Large Scale Job Management and Experience in Recent Data Challenges within the LHC CMS experiment**”, in proceedings of XII Advanced Computing and Analysis Techniques in Physics Research, 3-7 Nov. 2008, PoS (ACAT08) 032

2007

- J. Hernandez, A. Mohapatra, S. My, A. Pompili, S. Sarkar, J. Maes, P. van Mulders, G. Hammad, I. Villella, S. de Weirtdt, S. Wakefield, W. Guan, C. Lazaridis, J. Sanches, P. Kreuzer, A. Khomich, P. Elmer, D. Evans, A. Fanfani, F. van Lingen, C. Kavka, W. Bacchi, G. Eulisse, J. Caballero, G. Codispoti, C. Hof, A. Flossdorf, S. Kalinin, M. Abbrescia, N. de Filippes, G. Maggi, “**CMS Monte Carlo production in the WLCG Computing Grid**”, in Proceedings of Computing for High Energy Physics (CHEP), 2-9 September, 2007, Victoria, Canada
- S. Metson, G. Eulisse, D. Evans, A. Fanfani, P. Elmer, S. Belforte, R. Egeland, B. Bockelman, F. van Lingen, V. Kuznetsov, K. Dziedziewicz, D. Newbold, D. Feichtinger, C. Kavka, “**CMS Offline Web Tools**”, in Proceedings of Computing for High Energy Physics (CHEP), 2-9 September, 2007, Victoria, Canada.
- J. Bunn, C. Steenberg, F. Kahn, I. Legrand, H. Newman, M. Thomas, F. van Lingen, “**Science Gateways: Progress using the Clarens Toolkit on TeraGrid**”, In proceedings of Teragrid 2007, Madison Wisconsin, June 4-8 2007 (judged as one of three best track papers)

Frank van Lingen

<http://vanlingen.name>

- D. Evans, A. Fanfani, C. Kavka, F. van Lingen, G. Eulisse, W. Bacchi, G. Codispoti, D. Mason, N. de Filippis, J. Hernandez, P. Elmer, **The CMS Monte Carlo Production System: Development and Design**, CMS Conference Report CR2007/057, Presented at Hadron Collider Physics Symposium HCP 2007, La Biodola, Isola d'Elba, Italy 20-26 May 2007.

2006

- H. Newman, D. Bourilkov, J. Bunn, R. Cavanaugh, I. Legrand, S. Low, S. McKee, D. Nae, S. Ravot, C. Steenberg, X. Su, M. Thomas, F. van Lingen, Y. Xia, **The Design and Implementation of the Transatlantic Mission-Oriented Production and Experimental Networks**, Second IEEE International Conference on e-Science and Grid Computing (e-Science'06) p. 42.
- H. Newman, J. Bunn, D. Bourilkov, R. Cavanaugh, I. Legrand, S. Low, S. McKee, D. Nae, S. Ravot, C. Steenberg, X. Su, M. Thomas, F. van Lingen, Y. Xia, **"The Motivation, Architecture and Demonstration of the UltraLight Network Testbed"**, In proceedings of CESNET, Prague, Czech Republic, 6-8 March, 2006
- F. van Lingen, J. Bunn, I. Legrand, H. Newman, C. Steenberg, M. Thomas, Y. Xia, D. Bourilkov, R. Cavanaugh, D. Evans, E. Lipeless, S. Hsu, T. Martin. A. Rana. F. Wuerthwein, **"Supporting on Demand, Policy based Monte Carlo Production, Leveraging Clarens, and RunJob"**, In proceedings of Computing for High Energy Physics, Mumbai India, February 13-17, 2006
- R. Cavanaugh, H. Newman, F. van Lingen, I. Legrand, Y. Xia, D. Nae, C. Steenberg, S. Ravot, M. Thomas, J. Bunn, et.al, **"UltraLight: An Ultrascale Information System for Data Intensive Research"**, In proceedings of Computing for High Energy Physics, Mumbai, India, February 13-17, 2006
- Bobyshev, M. Crawford, P. DeMar, V. Grigaliuna, M. Grigoriev, A. Moibenko, D. Petravick, R. Rechenmacher, H. Newman, J. Bunn, F. van Lingen, D. Nae, S. Ravot, C. Steenberg, X. Su, M. Thomas, Y. Xia, **"Lambda Station: Production Applications Exploiting Advanced Networks in Data Intensive High Energy Physics"**, In proceedings of Computing for High Energy Physics, Mumbai, India, February 13-17, 2006
- S. McKee, H. Newman, F. van Lingen, L. Kramer, R. Cavanaugh, D. Bourilkov, **"Ultralight: A Managed Network Infrastructure for High Energy Physics"**, In proceedings of Computing for High Energy Physics, Mumbai, India, February 13-17, 2006

2005

- M. Thomas, C. Steenberg, F. van Lingen, H. Newman, J. Bunn, A. Ali, R. McClatchey, A. Anjum, T. Azim, W. ur Rehman, F. Khan, J. Uk In, **"JClarens: A Java Framework for Developing and Deploying Web Services for Grid Computing"**, In proceedings of the International Conference on Web Services, Orlando, USA, July 2005
- F. van Lingen, J. Bunn, I. Legrand, H. Newman, C. Steenberg, M. Thomas, A. Anjum, T. Azim, **"The Clarens Web Service Framework for Distributed Scientific Analysis in Grid Projects"**, Accepted to the Workshop on Web and Grid Services for Scientific Data Analysis, Oslo, Norway, June 2005
- A. Ali, A. Anjum, T. Azim, J. Bunn, A. Mehmood, R. McClatchey, H. Newman, W. Rehman, C. Steenberg, M. Thomas, F. van Lingen, I. Willers, M. A. Zafar, **"Resource Management Services for a Grid Analysis Environment"**, Accepted to the Workshop on Web and Grid Services for Scientific Data Analysis, Oslo, Norway, June 2005
- A. Ali, A. Anjum, T. Azim, J. Bunn, S. Iqbal, R. McClatchey, H. Newman, S. Shah, T. Solomonides, C. Steenberg, M. Thomas, F. van Lingen, I. Willers, **"Heterogenous Relational Databases for a Grid-enabled Analysis Environment"**, Workshop on Web and Grid Services for Scientific Data Analysis, Oslo, Norway, June 2005

2004

- J. Andreeva, A. Anjum, T. Barrass, D. Bonacorsi, J. Bunn, M. Corvo, N. Dardenov, N. De Filippis, F. Donno, G. Donvito, G. Eulisse, A. Fanfani, F. Fanzago, A. Filine, C. Grandi, J.M. Hernandez, V. Innocente, A. Jan, S. Lacaprara, I. Legrand, S. Metson, H. Newman, A. Pierro, L. Silvestris, C. Steenberg, H. Stockinger, L. Taylor, M. Thomas, L. Tuura, T. Wildish, F. Van Lingen, **"Use of Grid Tools to Support CMS Distributed Analysis"**, In proceedings of IEEE Nuclear Science Symposium, Rome, Italy, October 2004
- F. van Lingen, J. Bunn, I. Legrand, H. Newman, C. Steenberg, M. Thomas, P. Avery, D. Bourilkov, R. Cavanaugh, L. Chitnis, M. Kulkarni, J. Uk In, A. Anjum, T. Azim, **"Grid Enabled Analysis: Architecture,**

Frank van Lingen

<http://vanlingen.name>

Prototype and Status", In proceedings of Computing for High Energy Physics, Interlaken, Switzerland, September 2004

- C. Steenberg, J. Bunn, I. Legrand, H. Newman, M. Thomas, F. van Lingen, A. Anjum, T. Azim, "**The Clarens Grid-enabled Web Services Framework: Services and Implementation**", In proceedings of Computing for High Energy Physics(CHEP), Interlaken, Switzerland, September 2004
- A. Ali, A. Anjum, J. Bunn, R. Cavanaugh, F. van Lingen, R. McClatchey, H. Newman, W. ur Rehman, C. Steenberg, M. Thomas, I. Willers, "**Job Monitoring in an Interactive Grid Analysis Environment**", In proceedings of Computing for High Energy Physics, Interlaken, Switzerland, September 2004
- A. Ali, A. Anjum, J. Bunn, R. Cavanaugh, F. van Lingen, R. McClatchey, M. Atif Mehmood, H. Newman, C. Steenberg, M. Thomas, I. Willers, "**Predicting the Resource Requirements of a Job Submission**", In proceedings of Computing for High Energy Physics, Interlaken, Switzerland, 2004
- A. Ali, A. Anjum, J. Bunn, R. Cavanaugh, F. van Lingen, R. McClatchey, H. Newman, C. Steenberg, M. Thomas, I. Willers, M. Adeel Zafar, "**Job Interactivity using a Steering Service in an Interactive Grid Analysis Environment**", In proceedings of Computing for High Energy Physics, Interlaken, Switzerland, September 2004

2003

- C. D. Steenberg, E. Aslakson, J. J. Bunn, H. B. Newman, M. Thomas, F. van Lingen "**Clarens Client Server Applications**", Computing for High Energy Physics, La Jolla, USA, March 2003
- C. D. Steenberg, E. Aslakson, J. J. Bunn, H. B. Newman, M. Thomas, F. van Lingen "**The Clarens Webservice Architecture**", Computing for High Energy Physics, La Jolla, USA, March 2003

2002

- F. van Lingen, M. Liendl, M. Case, "**XML for Modeling, Data Integration and Meta Data within CMS**", SSGRR International Conference on Advances in Infrastructure for e-business, e-education, e-science, and e-medicine, 2002

2001

- F. van Lingen, R. McClatchey, P. van der Stok, I. Willers, "**XML for Domain Viewpoints**", In proceedings of SCI 2001
- F. van Lingen, "**XML Interface for Object-Oriented Databases**", In proceedings of ICEIS, 2001
- M. Liendl, F. van Lingen, M. Case, T. Todorov, P. Arce, A. Furtjens, V. Innoncente, A. de Roeck, "**The Role of XML in the CMS Detector Description**", In proceedings of Computing for High Energy Physics, 2001
- I. Willers, K. Holtman, F. van Lingen, H. Stockinger, "**Computing and Data Management for CMS in the LHC Era**", invited paper In proceedings of NEC, 2001

Posters

2005

- D. Evans, F. van Lingen, S. Hsu, F. Wurthwein, "**On Demand Monte Carlo Processing System**", OSG Workshop, Milwaukee USA, 2005
- Dimitri Bourilkov, Julian Bunn, Rick Cavanaugh, Iosif Legrand, Frank van Lingen, Harvey Newman, Conrad Steenberg, Michael Thomas "**Grid Enabled Analysis for CERN's CMS Experiment at the Large Hadron Collider**", (Poster) GlobusWorld Boston, February 2005

2004

- F. van Lingen, C. Steenberg, M. Thomas, J. Bunn, H. Newman, D. Bourilkov, R. Cavanaugh,, "**The Grid Analysis Environment (GAE): where the physics gets done**" , DOE National Collaboration meeting August 2004

2003

- F. van Lingen, K. Paschen, I. Legrand, C. Dobre, C. Stratan, "**Failure and dependencies of processes within models for the CMS DC04 using the MONARC simulation framework and monitoring data**", IX International Workshop on Advanced Computing and Analysis Techniques in Physics Research, Tsukuba, Japan, December 1-5, 2003 (poster)

Frank van Lingen

<http://vanlingen.name>

Misc

2005

- CMS Collaboration "CMS Computing Technical Design Report", CERN-LHCC-2005-023, June 2005

2004

- F. van Lingen "**Directed Acyclic Graphs for Modelling, Integration and Interoperability: A CMS perspective**" PhD Thesis, ISBN 90-386-0842-X, February 2004

2003

- A. J. Muhammad, M. Liendl, I. Willers, F. van Lingen, A. Ali, "**Migration of the XML Detector Description Data and Schema to a Relational Database**", CMS Note 031, 2003

2001

- F. van Lingen, M. Liendl, M. Case, "**Detector Description Domain Architecture & Data Model**", CMS note 2001

2000

- F. van Lingen, "**Seamless Integration of Information**", CMS Note 2000/025, February 2000

1999

- F. van Lingen, "**Design and Implementation of the MWT-GIS at TNO-FEL**" ISBN 90-5282-953-5 Eindhoven, September 1999

1996

- F. van Lingen, "**A Bulk Synchronous Parallel Minimum Degree Algorithm**" Master Thesis, Utrecht, August 1996