Gregor von Laszewski, Ph.D.

Research Professor, University of Virginia https://laszewski.github.io 🔗

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Charlottesville, VA 22903

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Bloomington, IN 47401
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EDUCATION

Ph.D., Computer Science, Syracuse University, Syracuse, NY   *Sep. 1991 - Nov. 1996*
  Thesis: A Parallel Data Assimilation System and Its Implications on a Metacomputing Environment
  Advisor: Geoffrey C. Fox

Fellowship at The Ohio State University, Columbus, OH   *Sep. 1990 – Sep. 1991*
  Graduate exchange student

M.S. Computer Science (Diplom Informatiker), University of Bonn, Germany   *Sep. 1987 - Nov. 1990*
  in collabooration with
  The German National Institute for Information Technology (GMD),
  now **Fraunhofer-Gesellschaft**
  Thesis: A Parallel Genetic Algorithm for the K-way Graph Partitioning Problem
  Major: Artificial Intelligence
  Minor: Physics
  Advisor: Heinz Mühlenbein

B.S. Computer Science (Vordiplom), University, of Bonn, Germany.   *Sep. 1984 - Apr. 1987*
  Major: Coputer Science
  Minor: Physics

EXPERIENCE

Research Professor, Biocomplexity Institute   *Nov 2021 - present*
  University of Virginia, Charlottesville, VA

Assistant Director, Digital Science Center   *Jul. 2012 - Dec. 2021*
  Indiana University, Bloomington, IN

Adjunct Professor, Intelligent Systems Engineering Department   *Sep. 2016 - Dec. 2021*
  Indiana University, Bloomington, IN

Assistant Director of Cloud Comuting, Community GridsLab   *Jul. 2009 – 2015*
  Indiana University, Bloomington, IN

Adjunct Professor, Computer, Science Department   *Sep. 2012 – Sep. 2015*
  Indiana University, Bloomington, IN

Lead Architect, FutureGrid   *Jul. 2009 – Jan. 2015*
  Indiana University, Bloomington, IN

Scientist, Argonne National Laboratory,   *Apr. 2002 – Jul. 2009*
  Mathematics and Computer Science Division. Argonne, IL.

Sabbatical from Argonne National Laboratory   *Aug. 2007 – Jul. 2009*
  Associate Professor, Rochester Institute of Technology, Rochester, NY
  Director, Service-Oriented Cyberinfrastructure Laboratory
  Associate Professor, Computer Science Department
  Associate Professor, Ph.D. Program, GCCIS
  Rochester Institute of Technology, Rochester, NY

Fellow, Computation Institute, University of Chicago *Jan. 2000 – Jul. 2007*
Computation Institute, Chicago, IL,

Visiting Professor, University of North Texas. *Nov. 2004 - Jan. 2005*
Department of Computer Science and Engineering, Denton, TX,

Assistant computer scientist, Argonne National Laboratory, *Nov. 1998 - Apr. 2002*
Mathematics and Computer Science Division. Argonne, IL.

Visiting professor/Guest Lecturer, Illinois Institute of Technology. *Jan. 2002 - Dec. 2002*
Computer Science Department, Chigaco IL

Postdoctoral researcher, Argonne National Laboratory *Nov. 1996 - Nov. 1998*
Mathematics and Computer Science Division. Argonne, IL.

Research assistant, NASA Goddard Space Flight Center *Jun. 1994 - Jan. 1995*
University Research Space Agency (USRA), Greenbelt, MD.

Research assistant, German National Research Center *Feb. 1987 - Sept. 1990*
for Information Technology (GMD)
now Frauenhofer Gesellschaft, Sankt Augustin, Germany

AWARDS

Best Paper Award. Best paper award at ACM International Conference on Supercomputing (ICS). *Jun. 2025*
DIMPLES: Distributed Influence Maximization for Pandemic pLanning on Exascale Systems, Minutoli, M. and
Neff, R. and Sattar, N.S. and Lu, H. and Feo, J. and Mortveit, H. and Vullikanti, A. and Xie, D. and Wilson,
M.L. and von Laszewski, G. and Bhattacharya, P. and Ferdous, S.M. and Kalyanaraman, A. and Becchi, M.
and Marathe, M. and Halappanavar, M.

Achievement Award. MLCommons Science Working Group efforts *2022*

Best Staff Award. *Sept. 2018*
School of Informatics, Computing, and Engineering, Bloomington, IN, U.S.A.

Special Judges award at the FLL Robotics World Championship *2018*
Team coached won the special judges award, Detroit. The team also won multiple
championship awards in the State of Indiana (2016–2018): 2016-2017 1st Place Programming Award; 2017
B3 FLL QT Best Core Values; 2018 B3 FLL QT Best Project award; 2017-2018 Southern Indiana Overall
Champion's Award; 2018 Southern Indiana Best Presentation Award; 2018 All Girls Champion FLL Challenge.

Sandia National Laboratories Recognition Award *Mar. 2005*
Member of the CMCS Team, Livermore, CA, U.S.A.

Overall best research poster at Supercomputing 2004 *Nov. 2004*
Poster won among 109 submissions. Pittsburgh, PA, U.S.A.

Chicago Innovation Award *Oct. 2003*
As member of the Globus Project, Chicago, IL, U.S.A.

Department of Energy Outstanding Mentor Award *Apr. 2003*
Argonne, IL, U.S.A. ↗

Best of Show award in the High-Performance Computing Challenge Supercomputing, 98 *Nov. 1998*
Received the award on stage, coordinated across multiple National Labs
the application was leading to the HPC Challange award, Orlando, FL.

Fellowship, University Space Research Agency (USRA) at Goddard Space Flight Center. *1995*

Fellowship, The Ohio State University. *1990*

Overall best student paper at Supercomputing, SC'92. *Oct. 1992*

Department for Education and Research, Germany *Sep. 1989*
Financial waiver by due to outstanding grades upon graduation.

Awards for Activities Supervised by Dr. von Laszewski

1. Best student research project 2015, Indiana University SOIC

2. Supervised the building of a cluster on a wall from recycled computer parts by 8 undergraduate honors students. The resulting cluster wall was presented by a student to the Institute and he won 1 of 5 awards among 65 group presentations, Aug. 2008.

3. Supervised the development of a Grid certificate authority that was awarded the best student project at Polytechnic New York.

4. Supervised the development of an LDAP browser that won the Novel developers award.

GRANTS

1. AWS Cloud Award: co-PI Gregor von Laszewski, AWS Cloud Credit for Research. Jul. 2023 - Sep. 2025, $30K

2. Cloudbank: co-PI Gregor von Laszewski, Collaborative Research: Framework: Software: CINES: A Scalable Cyberinfrastructure for Sustained Innovation in Network Engineering and Science, Apr. 2023 - Sep. 2024, $5300

3. NIST: PI Gregor von Laszewski, Reusable Hybrid Multi-Services Data Analytics Framework, Sep. 2021 – Aug. 2023, $75K Total to G. von Laszewski

4. NSF: co-PI Gregor von Laszewski, XD Metrics Service (XMS), Jul. 2015 – Aug. 2021, #1445806 , ☑, $750K Total to G. von Laszewski

5. XPS: FULL: DSD: Collaborative Research: Rapid Prototyping HPC Environment for Deep Learning, July 2, 2018 - Aug 2022, Geoffrey Fox gcf@indiana.edu (PI), Judy Qiu (Co-PI), Gregor von Laszewski (Co-PI), $315,000.00

6. NSF: co-PI Gregor von Laszewski, CSR: An Analytic Approach to Quantifying Availability (AQUA) for Cloud Resource Provisioning and Allocation #1409809/1409256, $100K total to G. von Laszewski.

7. NSF: co-PI Gregor von Laszewski, XD TAS, with University of Buffalo, $750K total to G. von Laszewski, 9/2009 – 9/2015, ☑

8. NSF: co-PI Gregor von Laszewski, XPS: FULL: DSD: Collaborative Research: Rapid Prototyping HPC Environment for Deep Learning, $315K total. ☑

9. NSF: Gregor von Laszewski, Gregor von Laszewski, PI at Indiana University, Collaborative Research: DDDAS-TMRP: An Adaptive Cyberinfrastructure for Threat Management in Urban Water Distribution Systems, FY2009-2010, $183K

10. NSF: Gregor von Laszewski, OGCE, subcontract with Indiana University, $216K 9/1/2007 – 8/31/2010

11. Microsoft: Gregor von Laszewski, Donation of a 40 node cluster.

12. Microsoft: Gregor von Laszewski, PI. What to teach in advanced Cyberinfrastructure. Aug. 2008, $5K. Summer 2008

13. Healthcare: Gregor von Laszewski, PI at RIT and Technical Director of the Emergency Directory Service, Development of an Emergency Directory Service. Subcontract with STEP of a grant-funded through GRRHIO via the NYSDOH. Nov 2008 – Aug 2010, $130K. Jan. 2009 – Aug. 2010. Transitioned in Aug 2009 to RIT as moving the grant was not possible.

14. DOE: Gregor von Laszewski, PI, LDRD On-demand calculation of Advanced Photon Source Data, Awarded, Oct. 06, 2006-2007, $300K.

15. DOE: Gregor von Laszewski, PI at Argonne National Laboratory SBIR on Insightful Workflows, Awarded. Sep. 06, $30K

16. NSF: Gregor von Laszewski, PI at University of Chicago, Collaborative Research: DDDAS-TMRP: An Adaptive Cyberinfrastructure for Threat Management in Urban Water Distribution Systems, University of Chicago, FY2006-FY2008, $52K, ANI0540076

17. DOE: Al Wagner, Branko Ruscic, and Gregor von Laszewski. Active Thermo Chemical Tables as part of the DOE SciDAC Collaboratory for Multiscale Chemical Science, $600K, Sept. 2004 Jun. 2006.

18. NSF: David Angulo and Gregor von Laszewski. REU Site: An Interdisciplinary REU Site for Bioinformatics and Grids, CNS0353989, $260K, FY2004 - FY2006.

19. NSF: Gregor von Laszewski. Collaborative Research: Grid Portal Middleware, ANI0330545, NMI: $393K, 1 Sep. 2003 - Sep. 2006.

20. DOE: Gregor von Laszewski and Keith Jackson. Commodity Grid Kits, Enabling Middleware Gregor von Laszewski for Designing Science Applications to enable Grid workflows. ⤢, $500K, Sep. - 2004 Sep. 2006.

21. DOE: Gregor von Laszewski and Keith Jackson. Commodity Grid Kits, Enabling Middleware for Designing Science Applications. ⤢, $750K, Sep. 2002 - Sep. 2004.

22. NSF: Gregor von Laszewski. Java CoG Kit Technologies, NSF Grant ACI9619019, $245K, FY2002 - FY204.

23. Microsoft: Gregor von Laszewski. Microsoft Equipment Donation, $5K, FY2003.

24. Microsoft: Gregor von Laszewski. Microsoft Software Donation: MSDN Subscription, FY1992- FY2006.

25. DOE: Al Wagner, Brank Ruscic, and Gregor von Laszewski. Active Thermo Chemical Tables as part of the DOE MICS Collaboratory for Multiscale Chemical Science, $900K, Sept. 2001 Sept. 2003.

26. DOE: Randy Brameley, Rick McMullan, John Hoffman, and Gregor von Laszewski. NGIA Grid-based Collaboratory for RealTime Data Acquisition IU/ANL, FWP 56890, $300K, FY1999.

SELECTED EDUCATIONAL ACTIVITIES

1. Undergraduate Research Opportunities

   - Fall 2022-2023, University of Virginia Biocomplexity Institute and Initiative, support of 2 undergarduate students for MLCommons benchmarks,
   - Fall 2022-2023 support 4 undergraduate students at New York University for MLCommons benchmarks
   - Summer REU 2022 University of Virginia Biocomplexity Institute and Initiative, 5 students supervised
   - Virtual Summer REU at Florida Agricultural and Mechanical University
     support of 18 students from which 17 were minorities, Summer 2020
   - Summer Research Experience at Indiana University
     Supervised 5 students from which 4 are minorities, Summer 2021
   - Undergraduate Research Opportunities in Computing, Indiana University 2020, 2021
   - Research experience for undergraduates
     Leading the organization of a group of 10 undergraduate students
   - RIT Honors Class, Parallel Compute Cluster, Rochester Institute of Technology, 2008
   - NSF REU Site on Grid Computing and Bioinformatics, DePaul University 2004-2006
   - Interprofessional Project Team Course, IPRO at Illinois Institute of Technology, Chicago, IL, Spring 2003
   - DOE/NSF Faculty-Student Teams (FaST) Program, Argonne National Labs, IL, 2003, 2002

2. Various courses related to Grid Computing and Big Data, Indiana University

   - ENGR-E 599 Independent Study in Cloud Computing Engineering and AI,
     Spring 2020, Fall 2020, Spring 2021
   - CSCI-B 649 Graduate: Topics in Systems with focus on Cloud Computing, Spring 2020
   - ENGR-E 616 Graduate: Advanced Cloud Computing, Spring 2018, Spring 2020

- ENGR-E 516 Graduate: Engineering Cloud Computing Spring 2018, Fall 2018, Spring 2019, Spring 2020
- INFO-I 423 Undergraduate: Big Data Applications and Analytics (Undergraduates), Fall 2016
- INFO-I 523 Graduate: Big Data Applications and Analytics (Graduates), Fall 2016
- ENGR-E 599 Graduate: Topics in Intelligent Systems Engineering, Fall 2016
- CSCI-Y 790 Graduate: Graduate Independent Study, Fall 2014

3. STEM student activities

- 2022-2023, K:11 Support of a high school student to be educated in parallel computing
- K5-6: Summer Camp, Indiana University, Introduction to Robotics and Python, Summer 2014
- K5-6: Introduction to Robot Programming, Indiana University
- K-12: Introduction to Cloud Computing for K-12 students, Purdue University K-12 Education Seminar, Sept. 2012
- K-12: Designing a Raspberry PI Cluster Case, Indiana University
- K5-12: Summer Camp on Robotics, Indiana University

Thesis Advised

1. MS: JavaScript CoG Kit. Fugang Wang, Rochester Institute of Technology, Dec 2009.

2. MS: GreenIT VM scheduling. Casey Rathbone, Dec 2010.

3. MS (Masters Project): Grid Security. Akylbek Zhumabayev, Rochester Institute of Technology, Graduation June 2009.

4. PhD: GridTorrents. Ali Kaplan, Indiana University, June 2009.

5. MS: GridShell, Boris Wachtmeister, Technical University Aachen, Germany, March 2008.

6. MS: Deployment Issues in Grid Computing. Guru Prasad, Southern Illinois University, Fall 2006.

7. PhD: An Integrated Architecture for Ad Hoc Grids. Kaizar Amin, Computer Science and Engineering Department, University of North Texas. Jan, 2006.

8. BS: Grid Service Data Needed for Estimation of Reliability in Scientific Workflow Systems, Daniel Colonnese, North Carolina State University, 2004.

9. MS: Grid Eigen Trust, A Framework for Computing Reputation in Grids. Beulah Kurian Alunkal, Computer Science Department, Illinois Institute of Technology, Chicago. Dec 2003.

10. MS: The Java CoG Kit Grid Desktop, A Simple and Central Approach to Grid Computing Using the Graphical Desktop Paradigm, Pankaj R. Sahasrabudhe, University of Louisville, 2003.

11. MS: Adapting BPEL4WS to the Grid, (committee member), Marcial Rion, Mathias Kengelbacher, A workflow language proposal for Grid environments, 2000, Main Advisor: Dr. Josef M. Joller, School of Technik, Raperswil, CH

12. BS: A Grid Certificate Authority, Mike Sosonkin, Polytechnic University, Brooklyn, New York (Best student project of the graduating class)

H-INDEX

As of February 1, 2026 Google scholar reported 12685 and an h-index of 47.

TECHNICAL STRENGTHS

Throughout my carreer, I have used many software systems and programming languages. I have developed and overseen many different projects that simplified utilization of Cloud, Distributed Computing, and Grid Infrastructure. I am the lead architect of cloudmesh. I was the lead architect of FutureGrid (a multicloud deployment) and the Java CoG Kit which supported many application portals to provide easy access to heterogeneous distributed HPC infrastructure including benchmarking.

Cloud Computing	VM, Containers, cloudmesh interfaces with AWS, Azure, Google, Oracle
Web related	REST, JSON, YAML
Computer Languages	Python, Java, Perl, C, C++, OCCAM, and others
Administartion	Project execution
GitHub	I am managing over 200 GitHub repositories
Collaboration	I am able to lead and work in large collaborative projects

STANDARDS DOCUMENTS

[1] *NIST Big Data*, Web Page, Feb. 2020. [Online]. Available: ☑.

[2] G. von Laszewski and W. L. Chang, "NIST Big Data Interoperability Framework: Volume 8, Reference Architecture Interfaces," National INstutute of Standards, Tech. Rep., Jun. 2019. [Online]. Available: ☑.

[3] "NIST Big Data Interoperability Framework: Volume 8, Reference Architecture Interfaces," NIST, Gaithersburg, MD 20899, NIST Special Publication 1500-9r1, Oct. 2019. [Online]. Available: ☑.

[4] G. von Laszewski, M. Helm, S. M. Fitzgerald, *et al.*, "GOSv3: A Data Definition Language for Grid Information Services," in *Argonne National Laboratory and Pacific Northwest Laboratory and Grid Forum Working Group Document GWD-GIS-011-11*, 2001. [Online]. Available: ☑.

[5] S. Fitzgerald, G. von Laszewski, and M. Swany, "GOSv2: A Data Definition Language for Grid Information Services," in *Global Grid Forum and GWD-GIS-011-5*, 2001. [Online]. Available: ☑.

COPYRIGHTED SOFTWARE

[6] J. Gawor and G. von Laszewski, *LDAP Browser/Editor*, Copyright, 2000.

PROCEEDINGS

[7] G. von Laszewski, J. Fleischer, G. C. Fox, J. Papay, S. Jackson, and J. Thiyagalingam, "Templated hybrid reusable computational analytics workflow management with cloudmesh, applied to the deep learning ml-commons cloudmask application," in *eScience'23*, Second Workshop on Reproducible Workflows, Data, and Security (ReWorDS 2022), Limassol, Cyprus, Oct. 2023. [Online]. Available: ☑.

[8] G. von Laszewski and G. C. Fox, "Proceedings of the cybertraining reu2022 cybertraining for students and technologies from generation z," University of Virginia, Charlottesvill, VA, Tech. Rep., Oct. 2022. [Online]. Available: ☑.

[9] G. von Laszewski, R. Grossman, M. Kozuchand, R. McGeer, and D. Milojicic, Eds., *FederatedClouds '12: Proceedings of the 2012 Workshop on Cloud Services and Federation, and the 8th Open Cirrus Summit*, San Jose, California, USA: ACM, 2012, ISBN: 978-1-4503-1754-2. [Online]. Available: ☑.

[10] *Workshop on data intensive computing in the clouds-DataCloud*, 2011, p. 1033. [Online]. Available: ☑.

[11] G. von Laszewski, Ed., *Grid Computing Environments 2007 Confernce Proceeedings*, in conjunction with IEEE/ACM SC07, Reno, NV: Published Mar. 2008, Rochester Institute of Technology, Rochester NY, Nov. 2007.

[12] G. von Laszewski, Ed., *Grid Computing Environments 2006 Confernce Proceeedings*, in conjunction with IEEE/ACM SC06, Tampa, FL: Published Aug. 2008, Rochester Institute of Technology, Rochester NY, Nov. 2006.

SELECTED CLASS BOOKS AND PROCEEDINGS

[13] G. von Laszewski, "Cloud Computing," Indiana University, Bloomington IN, U.S.A., Online Book, Feb. 2020. [Online]. Available: ⬀.

[14] G. von Laszewski, "Python for Cloud Computing," Indiana University, Bloomington IN, U.S.A., Online Book, Feb. 2020. [Online]. Available: ⬀.

[15] G. von Laszewski, "Linux for Cloud Computing," Indiana University, Bloomington IN, U.S.A., Online Book, Feb. 2020. [Online]. Available: ⬀.

[16] G. von Laszewski, "Scientific Writing with Markdown," Indiana University, Bloomington IN, U.S.A., Online Book, Feb. 2020. [Online]. Available: ⬀.

[17] G. von Laszewski, *Cloud Technologies* (Indiana University, Class Book), 3rd ed. Bloomington IN, U.S.A.: Online, Dec. 2019, p. 998. [Online]. Available: ⬀.

[18] G. von Laszewski and G. C. Fox, *Handbook of Clouds and Big Data.* Bloomington. IN: Indiana University, Dec. 2018. [Online]. Available: ⬀.

[19] G. Laszewski, Ed., *Projects in Big Data Software and Applications (Proceedings)* (Online Books Digital Science Center). Bloomington, IN: Online, Indiana University, May 2017. [Online]. Available: ⬀.

[20] G. Laszewski, Ed., *Big Data Software 1 (Proceedings)* (Online Books Digital Science Center). Bloomington, IN: Online, Indiana University, Dec. 2017. [Online]. Available: ⬀.

[21] G. Laszewski, Ed., *Big Data Software 2 (Proceedings)* (Online Books Digital Science Center). Bloomington, IN: Online, Indiana University, Dec. 2017. [Online]. Available: ⬀.

[22] G. Laszewski, Ed., *Use Cases in Big Software and Analytics (Proceedings)* (Online Books Digital Science Center). Bloomington, IN: Online, Indiana University, Dec. 2017, vol. 2. [Online]. Available: ⬀.

[23] G. Laszewski, Ed., *Use Cases in Big Software and Analytics (Proceedings)* (Online Books Digital Science Center). Bloomington, IN: Online, Indiana University, Dec. 2017, vol. 1. [Online]. Available: ⬀.

[24] G. Laszewski, Ed., *Use Cases in Big Data Software and Analytics (Proceedings)* (Online Books Digital Science Center). Bloomington, IN: Online, Indiana University, Jan. 2018, vol. 3. [Online]. Available: ⬀.

[25] G. Laszewski, Ed., *Cloud and Big Data Technologies (Proceedings)* (Online Books Digital Science Center). Bloomington, IN: Online, Indiana University, May 2018, vol. 8. [Online]. Available: ⬀.

[26] G. Laszewski, Ed., *Cloud and Big Data Technologies (Proceedings)* (Online Books Digital Science Center). Bloomington, IN: Online, Indiana University, May 2018, vol. 9. [Online]. Available: ⬀.

[27] G. Laszewski, Ed., *Cloud Computing Papers, Class Proceedings* (Online Books Digital Science Center). Bloomington, IN: Online, Indiana University, 2018. [Online]. Available: ⬀.

[28] G. von Laszewski, *Issues in Parallel Computing.* 1995. [Online]. Available: ⬀.

BOOK CHAPTERS

[29] A. K. Sarker, A. Alsaadi, A. J. Halpern, *et al.*, "Deep rc: A scalable data engineering and deep learning pipeline," in *Job Scheduling Strategies for Parallel Processing*, D. Klusáček, J. Corbalán, and G. P. Rodrigo, Eds., Cham: Springer Nature Switzerland, 2026, pp. 205–223, ISBN: 978-3-032-10507-3.

[30] G. von Laszewski, F. Wang, Lee, *et al.*, "The FutureGrid Testbed for Big Data," in *Cloud Computing for Data-Intensive Applications*, ser. BigSystem '14, X. Li and J. Qiu, Eds., Vancouver, BC, Canada: Springer, 2014, TBD, ISBN: 978-1-4503-2909-5. DOI: 10.1145/2609441.2609638. [Online]. Available: ⬀.

[31] G. C. Fox, G. von Laszewski, J. Diaz, *et al.*, "Contemporary High Performance Computing," in J. S. Vetter, Ed., 1st ed. Boca Raton, FL: Chapman and Hall/CRC, 2013, vol. 1, ch. Futuregrid: a Reconfigurable Testbed for Cloud, HPC and Grid Computing, pp. 603–636, republished in 2018, ISBN: 9781351104005. [Online]. Available: ⬀.

[32] J. Dayal, C. Rathbone, L. Wang, and G. von Laszewski, "Towards on Demand IT Service Deployment," in *Internet Policies and Issues. Volume 7 - 2nd quarter*, Nova, 2011, pp.249–262, ISBN: 978-1-61668-745-8.

[33] A. J. Younge, G. von Laszewski, L. Wang, and G. C. Fox, "Providing a Green Framework for Cloud Based Data Centers," in *The Handbook of Energy-Aware Green Computing*, Ahmad, I., Ranka, and Sanjay, Eds., Chapman and Hall/CRC Press, 2011, ch. 17, ISBN: 978-1-4665-0116-4. [Online]. Available: ⬀.

[34] T. Kurze, L. Wang, G. v. Laszewski, *et al.*, "Cyberaide Virtual Applicance: On-Demand Deploying Middleware for Cyberinfrastructure," in *International Conference on Cloud Computing (CloudComp'09)*, ser. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, Avresky, D. R., Diaz, *et al.*, Eds., vol. 34, Munich, Germany: Springer Berlin Heidelberg, Oct. 2010, pp. 132–144, ISBN: 978-3-642-12636-9. DOI: `10.1007/978-3-642-12636-9_10`. [Online]. Available: ☑.

[35] G. von Laszewski, M. Hategan, and D. Kodeboyina, "Java CoG kit workflow," in *Workflows for e-Science*, Springer London, 2007, pp. 340–356. DOI: `10.1007/978-1-84628-757-2_21`. [Online]. Available: ☑.

[36] G. von Laszewski, M. Hategan, and D. Kodeboyina, "Work coordination for Grid computing," in *Grid Technologies*, ser. State-of-the-art in Science and Engineering, M. Bekakos, G. Gravvanis, and H. Arabnia, Eds., vol. 5, Wit, 2006, ISBN: 1-84564-055-1. [Online]. Available: ☑.

[37] G. von Laszewski, M. Hategan, and D. Kodeboyina, "Grid Workflow with the Java CoG Kit," in *Workflows for E-science: Scientific Workflows for Grids*, I. J. Taylor, E. Deelman, D. B. Gannon, and M. Shields, Eds., Secaucus, NJ, USA: Springer-Verlag New York and Inc., 2007, ISBN: 1846285194. [Online]. Available: ☑.

[38] O. Rana, A. Akram, R. Al-Ali, D. Walker, G. von Laszewski, and K. Amin, "Quality-of-Service Based Grid Communities," in *Extending Web Services Technologies: The Use of Multi-Agent Approaches*, ser. Multiagent Systems, Artificial Societies and Simulated Organizations, L. Cavedon, Z. Maamar, D. Martin, and B. Benatallah, Eds., vol. 13, Springer, 2005, ISBN: 0-387-23343-1. DOI: `10.1007/0-387-23344-X_8`. [Online]. Available: ☑.

[39] G. von Laszewski and K. Amin, "Middleware for Communications," in *Grid Middleware*, Q. H. Mahmoud, Ed., Wiley, 2004, pp. 109–130, ISBN: 0-470-86206-3. DOI: `10.1002/0470862084.ch5`. [Online]. Available: ☑.

[40] G. von Laszewski and P. Wagstrom, "Gestalt of the Grid," in *Tools and Environments for Parallel and Distributed Computing*, ser. Parallel and Distributed Computing, S. Hariri and M. Parashar, Eds., Wiley, 2004, pp. 149–187, ISBN: 978-0-471-47484-5. [Online]. Available: ☑.

[41] K. Amin and G. von Laszewski, "High-Level Grid Execution Patterns," in *Distributed Computing - IWDC 2004*, Springer Berlin Heidelberg, 2004, pp. 543–543. DOI: `10.1007/978-3-540-30536-1_69`. [Online]. Available: ☑.

[42] G. von Laszewski and K. Amin, "Grid Middleware," in *Middleware for communications*, Q. Mahmoud, Ed. Chichester, England and Hoboken, NJ: Wiley, 2004, ISBN: 978-0-470-86206-3. [Online]. Available: ☑.

[43] G. von Laszewski, J. Gawor, S. Krishnan, and K. Jackson, "Commodity Grid Kits - Middleware for Building Grid Computing Environments," in *Grid Computing: Making the Global Infrastructure a Reality*, ser. Communications Networking and Distributed Systems, F. Berman, G. Fox, and T. Hey, Eds., Wiley, 2003, pp. 639–656, ISBN: 0-470-85319-0. [Online]. Available: ☑.

[44] G. von Laszewski, M.-H. Su, J. Insley, I. Foster, and C. Kesselman, "Sourcebook of Parallel Computing," in *Quasi-Realtime Microtomography Experiments at Photon Sources*, J. Dongara, I. Foster, G. Fox, *et al.*, Eds., New York: Morgan Kaufman Publishers, 2003, pp. 258–265, ISBN: 9781558608719. [Online]. Available: ☑.

[45] I. Foster, G. von Laszewski, G. K. Thiruvathukal, and B. Toonen, "A Computational Framework for Telemedicine," *Future Generation Computer Systems*, vol. 14, no. 1, pp. 109–123, 1998, The Telemedical Information Society, ISSN: 0167-739X. DOI: `https://doi.org/10.1016/S0167-739X(98)00013-2`. [Online]. Available: ☑.

JOURNAL ARTICLES

[46] G. von Laszewski and S. Ranka, "Battle of the yolos - augmenting and benchmarking fisheye camera yolo models for traffic intersection object detection," *UF Journal of Undergraduate Research*, vol. 27, Jan. 2025. DOI: `10.32473/ufjur.27.139103`. [Online]. Available: ☑.

[47] N. Perera, A. K. Sarker, K. Shan, *et al.*, "Supercharging distributed computing environments for high-performance data engineering," *Frontiers in High Performance Computing*, vol. Volume 2 - 2024, 2024, ISSN: 2813-7337. DOI: `10.3389/fhpcp.2024.1384619`. [Online]. Available: ☑.

[48] J. P. Fleischer, G. von Laszewski, C. Theran, and Y. J. Parra Bautista, "Time series analysis of cryptocurrency prices using long short-term memory," *Algorithms*, vol. 15, no. 7, 2022, ISSN: 1999-4893. DOI: `10.3390/a15070230`. [Online]. Available: ☑.

[49] G. C. Fox, G. von Laszewski, F. Wang, and S. Pyne, "AICov: An Integrative Deep Learning Framework for COVID-19 Forecasting with Population Covariates," *Journal of Data Science*, vol. 19, no. 2, pp. 293–313, 2021, ISSN: 1680-743X. DOI: `10.6339/21-JDS1007`. [Online]. Available: ☑.

[50] G. von Laszewski, J. Fleischer, R. Knuuti, *et al.*, "Opportunities for enhancing mlcommons efforts while leveraging insights from educational mlcommons earthquake benchmarks efforts," *Frontiers in High Performance Computing,*, vol. 1, no. 1233877, p. 31, Oct. 2023. [Online]. Available: ✪.

[51] J. C. Browne, R. L. DeLeon, A. K. Patra, *et al.*, "Comprehensive, open-source resource usage measurement and analysis for HPC systems," *Concurr. Comput. Pract. Exp.*, vol. 26, no. 13, pp. 2191–2209, 2014. DOI: `10.1002/cpe.3245`. [Online]. Available: ✪.

[52] L. Wang, T. Kurze, J. Tao, M. Kunze, and G. von Laszewski, "On-demand Service Hosting on Production Grid Infrastructures," *The Journal of Supercomputing*, vol. 66, no. 3, pp. 1178–1193, 2013. DOI: `10.1007/s11227-011-0666-5`.

[53] T. R. Furlani, M. D. Jones, S. M. Gallo, *et al.*, "Performance Metrics and Auditing Framework using Application Kernels for High-performance Computer Systems," *Concurrency and Computation: Practice and Experience*, vol. 25, no. 7, pp. 918–931, Jul. 2013. DOI: `10.1002/cpe.2871`. [Online]. Available: ✪.

[54] L. Wang, M. Kunze, J. Tao, and G. von Laszewski, "Towards building a cloud for scientific applications," *Advances in Engineering Software*, vol. 42, no. 9, pp. 714–722, 2011, ISSN: 0965-9978. DOI: `https://doi.org/10.1016/j.advengsoft.2011.05.007`. [Online]. Available: ✪.

[55] G. von Laszewski, J. Dayal, and L. Wang, "eMOLST: A Documentation Flow for Distributed Health Informatics," *Concurrency and Computation: Practice and Experience*, vol. 23, no. 16, pp. 1857–1867, 2011. DOI: `10.1002/cpe.1745`. [Online]. Available: ✪.

[56] L. Wang, G. von Laszewski, F. Huang, J. Dayal, T. Frulani, and G. Fox, "Task scheduling with ANN-based temperature prediction in a data center: a simulation-based study," *Eng. Comput. (Lond.)*, vol. 27, no. 4, pp. 381–391, 2011. DOI: `10.1007/s00366-011-0211-4`. [Online]. Available: ✪.

[57] L. Wang, G. von Laszewski, D. Chen, J. Tao, and M. Kunze, "Provide Virtual Machine Information for Grid Computing," *IEEE Transactions on Systems, Man, and Cybernetics, Part A: Systems and Humans*, vol. 40, no. 6, pp. 1362–1374, Nov. 2010. DOI: `10.1109/TSMCA.2010.2052598`.

[58] L. Wang, J. Tao, G. von Laszewski, and H. Marten, "Multicores in Cloud Computing: Research Challenges for Applications," *JCP*, vol. 5, no. 6, pp. 958–964, 2010. DOI: `10.4304/jcp.5.6.958-964`. [Online]. Available: ✪.

[59] L. Wang, G. von Laszewski, M. Kunze, J. Tao, and J. Dayal, "Provide Virtual Distributed Environments for Grid computing on Demand," *Advances in Engineering Software*, vol. 41, no. 2, pp. 213–219, Feb. 2010, ISSN: 0965-9978. DOI: `10.1016/j.advengsoft.2009.09.002`. [Online]. Available: ✪.

[60] L. Wang, Laszewski, G. Von, J. Tao, and M. Kunze, "Virtual Data System on Distributed Virtual Machines in Computational Grids," *International Journal of Ad Hoc and Ubiquitous Compututing*, vol. 6, no. 4, pp. 194–204, Sep. 2010, ISSN: 1743-8225. DOI: `10.1504/IJAHUC.2010.035532`. [Online]. Available: ✪.

[61] X. Yang, L. Wang, and G. Laszewski, "Recent Research Advances in e-Science," *Cluster Computing*, vol. 12, no. 4, pp. 353–356, Dec. 2009, ISSN: 1386-7857. DOI: `10.1007/s10586-009-0104-0`. [Online]. Available: ✪.

[62] L. Wang, G. von Laszewski, J. Tao, and M. Kunze, "Grid Virtualization Engine: Design, Implementation and Evaluation," *IEEE Systems Journal*, vol. 3, no. 4, pp. 477–488, 2009. DOI: `10.1109/JSYST.2009.2028589`. [Online]. Available: ✪.

[63] L. Wang, G. von Laszewski, A. Younge, *et al.*, "Cloud Computing: a Perspective Study," *New Generation Computing*, vol. 28, no. 2, pp. 137–146, 2010, Springer, Ohmsha, Ltd. DOI: `10.1007/s00354-008-0081-5`. [Online]. Available: ✪.

[64] K. Schuchardt, C. Pancerella, L. A. Rahn, *et al.*, "Portal-based Knowledge Environment for Collaborative Science," *Concurrency and Computation: Practice and Experience*, vol. 19, no. 12, pp. 1703–1716, 2007. DOI: `10.1002/cpe.1201`. [Online]. Available: ✪.

[65] J. Alameda, M. Christie, G. Fox, *et al.*, "The Open Grid Computing Environments collaboration: portlets and services for science gateways," *Concurrency and Computation: Practice and Experience*, vol. 19, no. 6, pp. 921–942, 2007, ISSN: 1532-0634. DOI: `10.1002/cpe.1078`. [Online]. Available: ✪.

[66] T. Goodale, S. Jha, H. Kaiser, *et al.*, "SAGA: A Simple API for Grid Applications. High-level application programming on the Grid," *Computational Methods in Science and Technology*, vol. 12, no. 1, pp. 7–20, 2006.

[67] G. von Laszewski, J. DiCarlo, and B. Allcock, "A Portal for Visualizing Grid Usage," *Concurrency and Computation: Practice and Experience*, vol. 19, no. 12, pp. 1683–1692, Aug. 2007, ISSN: 1532-0626. DOI: `10.1002/cpe.v19:12`. [Online]. Available: ✪.

[68] J. D. Myers, T. C. Allison, S. Bittner, *et al.*, "A Collaborative Informatics Infrastructure for Multi-Scale Science," *Cluster Computing*, vol. 8, no. 4, pp. 243–253, 2005. DOI: 10.1007/s10586-005-4092-4. [Online]. Available: ✇.

[69] M. P. Thomas, J. Burruss, L. Cinquini, *et al.*, "Grid portal architectures for scientific applications," *Journal of Physics: Conference Series*, vol. 16, pp. 596–600, Jan. 2005. DOI: 10.1088/1742-6596/16/1/083. [Online]. Available: ✇.

[70] R. Al-Ali, O. Rana, G. von Laszewski, A. Hafid, K. Amin, and D. Walker, "A Model for Quality-of-Service Provision in Service Oriented Architectures," *International Journal of Grid and Utility Computing*, p. 1, 2005. [Online]. Available: ✇.

[71] G. von Laszewski, "Workflow Concepts of the Java CoG Kit," *Journal of Grid Computing*, vol. 3, pp. 239–258, 3-4 Jan. 2005, ISSN: 1570-7873. DOI: 10.1007/s10723-005-9013-5. [Online]. Available: ✇.

[72] G. von Laszewski, B. Alunkal, and I. Veljkovic, "Toward Reputable Grids," *Scalable Computing: Practice and Experience*, vol. 6, no. 3, pp. 95–106, Sep. 2005, submitted in 2003. [Online]. Available: ✇.

[73] M. Thomas, J. Burruss, L. Cinquini, *et al.*, "Grid Portal Architectures for scientific applications," *Journal of Physics*, vol. 16, pp. 596–600, 2005. DOI: 10.1088/1742-6596/16/1/083. [Online]. Available: ✇.

[74] G. von Laszewski, "The Grid-Idea and Its Evolution," *Journal of Information Technology*, vol. 47, no. 6, pp. 319–329, Jun. 2005. DOI: 10.1524/itit.2005.47.6.319. [Online]. Available: ✇.

[75] B. Ruscic, R. E. Pinzon, G. von Laszewski, *et al.*, "Active Thermochemical Tables: Thermochemistry for the 21st century," *Journal of Physics*, vol. 16, pp. 561–570, 2005. DOI: 10.1088/1742-6596/16/1/078. [Online]. Available: ✇.

[76] B. Ruscic, R. E. Pinzon, M. L. Morton, *et al.*, "Introduction to Active Thermochemical Tables: Several Key Enthalpies of Formation Revisited," *J. Phys. Chem. A*, vol. 108, no. 45, pp. 9979–9997, 2004. DOI: 10.1021/jp047912y.

[77] R. J. Al-Ali, K. Amin, G. von Laszewski, *et al.*, "Analysis and Provision of QoS for Distributed Grid Applications," *Journal of Grid Computing*, vol. 2, no. 2, pp. 163–182, Jun. 2004, 10.1007/s10723-004-6743-8, ISSN: 1570-7873. DOI: 10.1007/s10723-004-6743-8. [Online]. Available: ✇.

[78] G. von Laszewski, J. Gawor, P. Plaszczak, *et al.*, "An Overview of Grid File Transfer Patterns and their Implementation in the Java CoG Kit," *Journal of Neural Parallel and Scientific Computing*, vol. 12, no. 3, pp. 329–352, Sep. 2004, Special Issue on Grid Computing, ISSN: 1061-5369. [Online]. Available: ✇.

[79] K. Amin, G. von Laszewski, R. A. Ali, O. Rana, and D. Walker, "An Abstraction Model for a Grid Execution Framework," *Euromicro Journal of Systems Architecture*, vol. 52, no. 2, pp. 73–87, 2006, ISSN: 1383-7621. DOI: 10.1016/j.sysarc.2004.10.007. [Online]. Available: ✇.

[80] X. He, X. Sun, and G. von Laszewski, "QoS guided Min-Min heuristic for grid task scheduling," *Journal of Computer Science and Technology*, vol. 18, no. 4, pp. 442–451, 2003. DOI: 10.1007/BF02948918. [Online]. Available: ✇.

[81] G. von Laszewski, B. Ruscic, K. Amin, P. Wagstrom, S. Krishnan, and S. Nijsure, "A Framework for Building Scientific Knowledge Grids Applied to Thermochemical Tables," *The International Journal of High Performance Computing Applications*, vol. 17, no. 4, pp. 431–447, Dec. 2003. DOI: 10.1177/10943420030174007. [Online]. Available: ✇.

[82] S. Mock, M. Thomas, M. Dahan, K. Mueller, C. Mills, and G. von Laszewski, "A Perl Commodity Grid Kit," *Concurrency and Computation: Practice and Experience*, vol. 14, no. 13-15, pp. 1085–1095, 2002, ISSN: 1532-0634. DOI: 10.1002/cpe.695. [Online]. Available: ✇.

[83] G. von Laszewski, J. Gawor, P. Lane, N. Rehn, M. Russell, and K. Jackson, "Features of the Java Commodity Grid Kit," *Concurrency and Computation: Practice and Experience*, vol. 14, no. 13-15, pp. 1045–1055, 2002, ISSN: 1532-0634. DOI: 10.1002/cpe.674. [Online]. Available: ✇.

[84] D. Snelling, S. van den Berghe, G. von Laszewski, *et al.*, "A Unicore Globus Interoperability Layer," *Computing and Informatics*, vol. 21, pp. 399–411, 2002, ISSN: 1335-9150. [Online]. Available: ✇.

[85] M. Parashar, G. von Laszewski, S. Verma, J. Gawor, and K. Keahey, "A CORBA Commodity Grid Kit," *Concurrency and Computation: Practice and Experience*, vol. 14, pp. 1057–1074, 2002. DOI: 10.1002/cpe.682. [Online]. Available: ✇.

[86] M. Russell, G. Allen, I. Foster, *et al.*, "The Astrophysics Simulation Collaboratory: A Science Portal Enabling Community Software Development," *Journal on Cluster Computing*, vol. 5, no. 3, pp. 297–304, Jul. 2002, ISSN: 1386–7857. DOI: 10.1023/A:1015629422149. [Online]. Available: ✇.

[87] G. von Laszewski, M. Russell, I. Foster, *et al.*, "Community Software Development with the Astrophysics Simulation Collaboratory," *Concurrency and Computation: Practice and Experience*, vol. 14, no. 13-15, pp. 1289–1301, 2002, ISSN: 1532-6634. DOI: `10.1002/cpe.688`. [Online]. Available: .

[88] G. von Laszewski, I. Foster, J. Gawor, and P. Lane, "A Java Commodity Grid Kit," *Concurrency and Computation: Practice and Experience*, vol. 13, no. 8-9, pp. 645–662, 2001, ISSN: 1532-6634. DOI: `10.1002/cpe.572`. [Online]. Available: .

[89] Y. Wang, F. DeCarlo, D. Mancini, *et al.*, "A High-Throughput X-Ray Microtomography System at the Advanced Photon Source," *Review of Scientific Instruments*, vol. 72, no. 4, pp. 2062–2068, Apr. 2001. DOI: `10.1063/1.1355270`. [Online]. Available: .

[90] V. Getov, G. von Laszewski, M. Philippsen, and I. Foster, "Multi-Paradigm Communications in Java for Grid Computing," *Communications of ACM*, vol. 44, no. 10, pp. 118–125, Oct. 2001, ISSN: 0001-0782. DOI: `10.1145/383845.383872`. [Online]. Available: .

[91] G. von Laszewski, M. Westbrook, I. Foster, E. Westbrook, and C. Barnes, "Using Computational Grid Capabilities to Enhance the Ability of an X-Ray Source for Structural Biology," *Cluster Computing*, vol. 3, no. 3, pp. 187–199, 2000. DOI: `10.1023/A:1019036421819`. [Online]. Available: .

[92] G. von Laszewski, "A Loosely Coupled Metacomputer: Cooperating Job Submissions Across Multiple Supercomputing Sites," *Concurrency: Practice and Experience*, vol. 11, no. 15, pp. 933–948, Dec. 1999, The initial version of this paper was available in 1996, ISSN: 1096-9128. DOI: `10.1002/(SICI)1096-9128(19991225)11:15<933::AID-CPE461>3.0.CO;2-J`. [Online]. Available: .

[93] I. Foster, J. Insley, G. von Laszewski, C. Kesselman, and M. Thiebaux, "Distance Visualization: Data Exploration on the Grid," *IEEE Computer*, vol. 32, no. 12, pp. 36–43, Dec. 1999, ISSN: 0018-9162. DOI: `10.1109/2.809249`. [Online]. Available: .

[94] P. Stelling, C. DeMatteis, I. Foster, C. Kesselman, C. Lee, and G. von Laszewski, "A Fault Detection Service for Wide Area Distributed Computations," *Cluster Computing*, vol. 2, no. 2, pp. 117–128, 1999, ISSN: 1386-7857. DOI: `10.1023/A:1019070407281`. [Online]. Available: .

[95] Mohamed, A. Gaber, G. C. Fox, and G. von Laszewski, "Blocked LU factorization on a multiprocessor computer," *Computer-Aided Civil and Infrastructure Engineering*, vol. 8, no. 1, pp. 45–56, 1993. [Online]. Available: .

ARTICLE IN PROCEEDINGS AND WORKSHOPS

[96] M. Minutoli, R. Neff, N. S. Sattar, *et al.*, "Dimples: Distributed influence maximization for pandemic planning on exascale systems," in *Proceedings of the 39th ACM International Conference on Supercomputing*, ser. ICS '25, Association for Computing Machinery, 2025, pp. 718–733, ISBN: 9798400715372. DOI: `10.1145/3721145.3730414`. [Online]. Available: .

[97] G. von Laszewski, "Reusable hybrid and multi-cloud analytics service framework," in *4th International Conference on Big data, IoT, and Cloud Computing (ICBICC 2022)*, Keynote, Chengdu, China: IASED, Dec. 2022. [Online]. Available: .

[98] G. von Laszewski, A. Orlowski, R. H. Otten, *et al.*, "Using GAS for Speedy Generation of HybridMulti-Cloud Auto Generated AI Services," in *IEEE COMPSAC 2021: Intelligent and Resilient Computing for a Collaborative World45th Anniversary Conference*, All Virtual: IEEE, Jul. 2021. [Online]. Available: .

[99] G. von Laszewski, F. Wang, and G. C. Fox, "Comprehensive Evaluation of XSEDE's Scientific Impact Using Semantic Scholar Data," in *Practice and Experience in Advanced Research Computing (PEARC'21)*, ser. PEARC '21, Boston, MA, USA: Association for Computing Machinery, Jul. 2021, ISBN: 9781450382922. DOI: `10.1145/3437359.3465601`. [Online]. Available: .

[100] S. Kamburugamuve, C. Widanage, N. Perera, *et al.*, *HPTMT: Operator-Based Architecture for Scalable High-Performance Data-Intensive Frameworks*, accepted for publication, 2021. arXiv: `2107.12807 [cs.DC]`. [Online]. Available: .

[101] N. Ahmed, R. Alo, C. Amelink, *et al.*, "Net.science: A cyberinfrastructure for sustained innovation in network science and engineering," *Gateways Conference 2020*, Nov. 2020. [Online]. Available: .

[102] V. Abeykoon, G. von Laszewski, S. Kamburugamuve, *et al.*, "Streaming Machine Learning Algorithms with Big Data Systems," in *2019 IEEE International Conference on Big Data (Big Data), Los Angeles, CA, USA*, C. Baru, J. Huan, L. Khan, *et al.*, Eds., IEEE, Dec. 2019, pp. 5661–5666. DOI: `10.1109/BigData47090.2019.9006337`. [Online]. Available: .

[103] G. von Laszewski, F. Wang, G. C. Fox, *et al.*, "Human in the Loop Virtual Machine Management on Comet," in *Humans in the Loop: Enabling and Facilitating Research on Cloud Computing*, Chicago, IL, USA, Jul. 2019. DOI: 10.1145/3355738.3355751. [Online]. Available: ✆.

[104] F. Wang, G. v. Laszewski, T. Whitson, *et al.*, "Evaluating the Scientific Impact of XSEDE," in *Proceedings of the Practice and Experience on Advanced Research Computing*, ACM, 2018, p. 10. DOI: 10.1145/3219104.3219124. [Online]. Available: ✆.

[105] M. McCombe, G. von Laszewski, and G. C. Fox, "Automated sharded mongodb deployment and benchmarking for big data analysis," in *Chameleon Cloud User Meeting*, University of Chicago, 2017. [Online]. Available: ✆.

[106] G. Laszewski and G. C. Fox, "Automated sharded mongodb deployment and benchmarking for big data analysis," in *Chameleon Cloud User Meeting*, University of Chicago, 2017. [Online]. Available: ✆.

[107] G. von Laszewski and G. C. Fox, "Teaching Big Data and Open Source Software on Chameleon Cloud," in *Chameleon Cloud User Meeting*, University of Chicago, Jul. 2017. [Online]. Available: ✆.

[108] S. M. Strande, H. Cai, T. Cooper, *et al.*, "Comet: Tales from the Long Tail: Two Years In and 10000 Users Later," in *Proceedings of the Practice and Experience in Advanced Research Computing 2017 on Sustainability, Success and Impact*, ser. PEARC17, New Orleans, LA, USA: Association for Computing Machinery, 2017, p. 38, ISBN: 9781450352727. DOI: 10.1145/3093338.3093383. [Online]. Available: ✆.

[109] R. Wagner, P. Papadopoulos, D. Mishin, *et al.*, "User Managed Virtual Clusters in Comet," in *Proceedings of the XSEDE16 Conference on Diversity, Big Data, and Science at Scale*, Miami, FL, USA: ACM, New York, NY, Jul. 2016, 24:1–24:8, ISBN: 978-1-4503-4755-6. DOI: 10.1145/2949550.2949555. [Online]. Available: ✆.

[110] G. von Laszewski, F. Wang, G. Fox, *et al.*, "Peer Comparison of XSEDE and NCAR Publication Data," in *2015 IEEE International Conference on Cluster Computing and*, Chicago, IL, USA: IEEE, Sep. 8, 2015, pp. 531–532, ISBN: 978-1-4673-6598-7. DOI: 10.1109/CLUSTER.2015.98. [Online]. Available: ✆.

[111] R. L. DeLeon, T. R. Furlani, S. M. Gallo, *et al.*, "TAS View of XSEDE Users and Usage," in *Proceedings of the 2015 XSEDE Conference: Scientific Advancements Enabled by Enhanced Cyberinfrastructure*, ser. XSEDE '15, St. Louis, Missouri: ACM, 2015, 21:1–21:8, ISBN: 978-1-4503-3720-5. DOI: 10.1145/2792745.2792766. [Online]. Available: ✆.

[112] G. von Laszewski, F. Wang, G. C. Fox, *et al.*, "Peer Comparison of XSEDE Publication Data," in *XSEDE2015*, Poster and Technical Report, Indiana University, St. Louis: IEEE, Jul. 2015. [Online]. Available: ✆.

[113] F. Wang, G. von Laszewski, G. C. Fox, T. R. Furlani, R. L. DeLeon, and S. M. Gallo, "Towards a Scientific Impact Measuring Framework for Large Computing Facilities - a Case Study on XSEDE," in *Proceedings of the 2014 Annual Conference on Extreme Science and Engineering Discovery Environment*, ser. XSEDE '14, Atlanta, GA, USA: ACM, 2014, 25:1–25:8, ISBN: 978-1-4503-2893-7. DOI: 10.1145/2616498.2616507. [Online]. Available: ✆.

[114] G. von Laszewski, F. Wang, H. Lee, H. Chen, and G. C. Fox, "Accessing multiple clouds with cloudmesh," in *Proceedings of the 2014 ACM international workshop on Software-defined ecosystems - BigSystem '14*, ACM Press, 2014. DOI: 10.1145/2609441.2609638. [Online]. Available: ✆.

[115] H. Li, G. Fox, G. von Laszewski, and A. Chauhan, "Co-processing SPMD computation on CPUs and GPUs cluster," in *2013 IEEE International Conference on Cluster Computing (CLUSTER)*, 2013, pp. 1–10. DOI: 10.1109/CLUSTER.2013.6702632. [Online]. Available: ✆.

[116] T. R. Furlani, B. L. Schneider, M. D. Jones, *et al.*, "Using XDMoD to Facilitate XSEDE Operations, Planning and Analysis," in *Proceedings of the Conference on Extreme Science and Engineering Discovery Environment: Gateway to Discovery*, ser. XSEDE '13, San Diego, California: ACM, 2013, 46:1–46:8, ISBN: 978-1-4503-2170-9. DOI: 10.1145/2484762.2484763. [Online]. Available: ✆.

[117] J. Diaz, G. von Laszewski, F. Wang, and G. C. Fox, "Abstract Image Management and Universal Image Registration for Cloud and HPC Infrastructures," in *IEEE Cloud 2012*, Honolulu, Jun. 2012. DOI: 10.1109/CLOUD.2012.94. [Online]. Available: ✆.

[118] G. von Laszewski, J. Diaz, F. Wang, and G. C. Fox, "Comparison of Multiple Cloud Frameworks," in *IEEE Cloud 2012*, Honolulu, HI, Jun. 2012. DOI: 10.1109/CLOUD.2012.104. [Online]. Available: ✆.

[119] T. R. Furlani, B. I. Schneider, M. D. Jones, *et al.*, "Data analytics driven cyberinfrastructure operations, planning and analysis using XDMoD," in *Proceedings of the SC12 Conference*, 2012. [Online]. Available: ✆.

[120] A. J. Younge, R. Henschel, J. T. Brown, G. von Laszewski, J. Qiu, and G. C. Fox, "Analysis of Virtualization Technologies for High Performance Computing Environments," in *Proceedings of the 4th International Conference on Cloud Computing (CLOUD 2011)*, Washington, DC: IEEE, Jul. 2011, pp. 9–16. DOI: 10.1109/CLOUD.2011.29. [Online]. Available: ⬀.

[121] G. von Laszewski and F. W. Lizhe Wang, "Simulation of Threat Management of Urban Water Distribution Systems with Grid Workflow," in *The Second International Conference on Parallel, Distributed, Grid and Cloud Computing for Engineering*, Extended paper available, Ajaccio, Corsica, France, Apr. 2011. DOI: 10.1007/11758532_54. [Online]. Available: ⬀.

[122] J. Diaz, G. von Laszewski, F. Wang, A. J. Younge, and G. C. Fox, "FutureGrid Image Repository: A Generic Catalog and Storage System for Heterogeneous Virtual Machine Images," in *Third IEEE International Conference on Coud Computing Technology and Science (CloudCom2011)*, Athens, Greece, Dec. 2011, pp. 560–564. DOI: 10.1109/CloudCom.2011.85. [Online]. Available: ⬀.

[123] J. Diaz, A. Younge, G. von Laszewski, F. Wang, and G. C. Fox, "Grappling cloud infrastructure services with a generic image repository," in *CCA11: Cloud Computing and Its Applications*, Argonne National Laboratory, USA., Apr. 2011. [Online]. Available: ⬀.

[124] G. von Laszewski, L. Wang, F. Wang, G. C. Fox, and M. G. Kumar, "Threat detection in an urban water distribution systems with simulations conducted in grids and clouds," in *Proc. The Second International Conference on Parallel and Distirbuted and Grid and cloud Computing for Engineering and Ajaccio and Corsica and France*, Citeseer, 2011. [Online]. Available: ⬀.

[125] G. von Laszewski, G. C. Fox, F. Wang, *et al.*, "Design of the FutureGrid Experiment Management Framework," in *Proceedings of Gateway Computing Environments 2010 (GCE2010) at SC10*, New Orleans, LA: IEEE, Nov. 2010. DOI: 10.1109/GCE.2010.5676126.

[126] L. Wang, G. von Laszewski, J. Tao, and M. Kunze, "Schedule Distributed Virtual Machines in a Service Oriented Environment," in *Proceedings of the 24th IEEE International Conference on Advanced Information Networking and Applications (AINA'10)*, Perth, Australia, Apr. 2010, pp. 230–236. DOI: 10.1109/AINA.2010.47. [Online]. Available: ⬀.

[127] T. Kurze, L. Wang, G. von Laszewski, J. Tao, and M. Kunze, "Cyberaide onServe: Software as a Service on Production Grids," in *Proceedings of the 39th International Conference on Parallel Processing (ICPP'10)*, San Diego, CA, USA, Sep. 2010, pp. 395–403. DOI: 10.1109/ICPP.2010.47. [Online]. Available: ⬀.

[128] A. J. Younge, G. von Laszewski, L. Wang, S. Lopez-Alarcon, and W. Carithers, "Efficient resource management for Cloud computing environments," in *Proceedings of the International Conference on Green Computing*, ser. GREENCOMP '10, Chicago, IL: IEEE Computer Society, Washington, DC, USA, 2010, pp. 357–364, ISBN: 978-1-4244-7612-1. DOI: 10.1109/GREENCOMP.2010.5598294. [Online]. Available: ⬀.

[129] L. Wang, G. von Laszewski, J. Dayal, and F. Wang, "Towards Energy Aware Scheduling for Precedence Constrained Parallel Tasks in a Cluster with DVFS," in *Proceedings of the 10th IEEE/ACM International Conference on Cluster and Cloud and Grid Computing*, ser. CCGRID '10, Melbourne, Victoria, Australia: IEEE Computer Society, Washington, DC, USA, May 2010, pp. 368–377, ISBN: 978-0-7695-4039-9. DOI: 10.1109/CCGRID.2010.19. [Online]. Available: ⬀.

[130] G. von Laszewski and L. Wang, "GreenIT Service Level Agreements," in *Grids and Service-Oriented Architectures for Service Level Agreements*, Wieder, Philipp, Yahyapour, Ramin, Ziegler, and Wolfgang, Eds., Banff, Canada: Springer US, Oct. 2009, pp. 77–88, ISBN: 978-1-4419-7320-7. [Online]. Available: ⬀.

[131] D. Chen, L. Wang, S. Wang, M. Xiong, G. von Laszewski, and X. Li, "Enabling Energy-Efficient Analysis of Massive Neural Signals Using GPGPU," in *Proceedings of the 2010 IEEE/ACM Int'L Conference on Green Computing, Communications and Int'L Conference on Cyber-Physical and Social Computing*, ser. GREENCOM-CPSCOM '10, Washington, DC, USA: IEEE Computer Society, 2010, pp. 147–154, ISBN: 978-0-7695-4331-4. DOI: 10.1109/GreenCom-CPSCom.2010.24.

[132] G. von Laszewski, G. C. Fox Fox, and FutureGrid Team, "Dynamic Provisioned Experiments in FutureGrid," in *2nd IEEE International Conference on Cloud Computing Technology and Science (CloudCom2010)*, Indianapolis, IN, Dec. 2010. [Online]. Available: ⬀.

[133] H. M. Gerndt, O. F. Rana, G. von Laszewski, and W. Ziegler, "09131 Abstracts Collection – Service Level Agreements in Grids," in *Service Level Agreements in Grids*, H. M. Gerndt, O. F. Rana, G. von Laszewski, and W. Ziegler, Eds., ser. Dagstuhl Seminar Proceedings, Dagstuhl, Germany: Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, Germany, 2009. [Online]. Available: ⬀.

[134] J. Espenshade, M. Lukowiak, S. Muhammad, and G. von Laszewski, "Flexible framework for commodity FPGA cluster computing," in *2009 International Conference on Field-Programmable Technology*, 2009, pp. 465–471. DOI: `10.1109/FPT.2009.5377649`. [Online]. Available: ☑.

[135] M. Pierce, S. Marru, G. K. Wenjun Wu, *et al.*, "Open Grid Computing Environments," in *TeraGrid 2009 Meeting*, Arlington, VA, Jun. 2009. [Online]. Available: ☑.

[136] L. Wang, G. von Laszewski, J. Dayal, X. He, A. J. Younge, and T. R. Furlani, "Towards Thermal Aware Workload Scheduling in a Data Center," in *Proceedings of the 10th International Symposium on Pervasive Systems, Algorithms and Networks (ISPAN2009)*, ser. ISPAN '09, Kao-Hsiung, Taiwan: IEEE Computer Society, Washington, DC, USA, Dec. 2009, pp. 116–122, ISBN: 978-0-7695-3908-9. DOI: `10.1109/I-SPAN.2009.22`.

[137] J. Espenshade, A. Pangborn, J. Cavenaugh, G. von Laszewski, and D. Roberts, "Accelerating Partitional Algorithms for Flow Cytometry on GPUs," in *The 7th IEEE International Symposium on Parallel and Distributed Processing with Applications (ISPA-09)*, Chengdu, Jiuzhai Valley, China: IEEE, Aug. 2009, pp. 226–233. DOI: `10.1109/ISPA.2009.29`. [Online]. Available: ☑.

[138] L. Wang, G. von Laszewski, J. Dayal, X. He, and T. R. Furlani, "Thermal Aware Workload Scheduling with Backfilling for Green Data Centers," in *Proceedings of the 28th IEEE International Performance Computing and Communications Conference (IPCCC)*, Arizona, U.S., Dec. 2009, pp. 289–296. DOI: `10.1109/PCCC.2009.5403821`.

[139] C. Rathbone, L. Wang, G. von Laszewski, and F. Wang, "Cyberaide Creative: On-Demand Cyberinfrastructure Provision in Clouds," in *International Workshop on Grid Computing and Applications and and Technologies (GridCAT 2009) in conjunction with the 10th International Symposium on Pervasive Systems and Algorithms and Networks (I-SPAN 2009)*, Kaoshiung, Taiwan: IEEE, Dec. 2009, pp. 684–690. DOI: `10.1109/I-SPAN.2009.23`. [Online]. Available: ☑.

[140] G. von Laszewski, L. Wang, A. J. Younge, and X. He, "Power-Aware Scheduling of Virtual Machines in DVFS-enabled Clusters," in *Proceedings of the 2009 IEEE International Conference on Cluster Computing (Cluster 2009)*, New Orleans: IEEE, Aug. 2009. DOI: `10.1109/GREENCOMP.2010.5598294`. [Online]. Available: ☑.

[141] G. von Laszewski, A. Younge, X. He, K. Mahinthakumar, and L. Wang, "Experiment and Workflow Management Using Cyberaide Shell," in *4th International Workshop on Workflow Systems in e-Science (WSES 09) in conjunction with 9th IEEE International Symposium on Cluster Computing and the Grid*, Shanghai, China: IEEE, May 2009, pp. 568–573. DOI: `10.1109/CCGRID.2009.66`. [Online]. Available: ☑.

[142] G. von Laszewski, H. Lee, J. Diaz, *et al.*, "Design of an Accounting and Metric-based Cloud-shifting and Cloud-seeding Framework for Federated Clouds and Bare-metal Environments," in *Proceedings of the 2012 Workshop on Cloud Services and Federation, and the 8th Open Cirrus Summit*, ser. FederatedClouds '12, San Jose, CA, USA: ACM, 2012, pp. 25–32, ISBN: 978-1-4503-1754-2. DOI: `10.1145/2378975.2378982`. [Online]. Available: ☑.

[143] G. von Laszewski and L. E. Dilmanian, "e-Science Project and Experiment Management with Microsoft Project," in *Grid Computing Environments Workshop and GCE'08*, Austin, TX: IEEE, Nov. 2008. DOI: `10.1109/GCE.2008.4738449`. [Online]. Available: ☑.

[144] G. von Laszewski, F. Wang, A. Younge, X. He, Z. Guo, and M. Pierce, "Cyberaide JavaScript: A JavaScript Commodity Grid Kit," in *GCE08 at SC'08*, Austin, TX: IEEE, Nov. 2008. DOI: `10.1109/GCE.2008.4738448`. [Online]. Available: ☑.

[145] Y. Zhao, Hategan, M., *et al.*, "Swift: Fast, Reliable and Loosely Coupled Parallel Computation," in *2007 IEEE Congress on Services*, 2007, pp. 199–206. DOI: `10.1109/SERVICES.2007.63`.

[146] G. von Laszewski, F. Wang, A. Younge, Z. Guo, and M. Pierce, "JavaScript Grid Abstractions," in *Proceedings of the Grid Computing Environments 2007 at SC07*, Reno, NV, Nov. 2007. [Online]. Available: ☑.

[147] A. Kaplan, G. C. Fox, and G. von Laszewski, "GridTorrent Framework: A High-performance Data Transfer and Data Sharing Framework for Scientific Computing," in *International Workshop on Grid Computing Environments 2007 (GCE07)*, 2007. [Online]. Available: ☑.

[148] S. Sreepathi, K. Mahinthakumar, E. Zechman, *et al.*, "Cyberinfrastructure for Contamination Source Characterization in Water Distribution Systems," in *Computational Science – ICCS 2007*, Shi, Yong, van Albada, *et al.*, Eds., Berlin, Heidelberg: Springer Berlin Heidelberg, 2007, pp. 1058–1065. [Online]. Available: ☑.

[149] K. Mahinthakumar, G. von Laszewski, R. Ranjithan, *et al.*, "An Adaptive Cyberinfrastructure for Threat Management in Urban Water Distribution Systems," in *Proceedings of the International Conference on Computational Science and ICCS 2006*, ser. ICCS'06, vol. 3993, Reading, UK: Springer-Verlag, 2006, pp. 401–408, ISBN: and 978-3-540-34383-7. DOI: `10.1007/11758532_54`. [Online]. Available: ☑.

[150] G. von Laszewski, C. Grubb, M. Bone, and D. Angulo, "Workflow Management Through Cobalt," in *International Workshop on Grid Computing Environments 2006 in Conjunction with SC06*, 2006. [Online]. Available: ☑.

[151] K. Amin, G. von Laszewski, M. Sosonkin, A. Mikler, and M. Hategan, "Ad hoc grid security infrastructure," in *The 6th IEEE/ACM International Workshop on Grid Computing*, 2005, p. 8. DOI: `10.1109/GRID.2005.1542726`. [Online]. Available: ☑.

[152] G. von Laszewski, C. Grubbs, M. Bone, and D. Angulo, "The Java CoG Kit Experiment Manager," in *International Workshop on Grid Computing Environments 2006 in Conjunction with SC06*, 2006. [Online]. Available: ☑.

[153] G. von Laszewski and D. Kodeboyina, "A Repository Service for Grid Workflow Components," in *Proceedings of the Joint International Conference on Autonomic and Autonomous Systems and International Conference on Networking and Services*, ser. ICAS-ICNS '05, Papeete, Tahiti, French Polynesia: IEEE Computer Society, Washington, DC, USA, Oct. 2005, pp. 84–, ISBN: 0-7695-2450-8. [Online]. Available: ☑.

[154] G. von Laszewski and M. Sosonkin, "A Grid Certificate Authority for Community and Ad-hoc Grids," in *7th International Workshop on Java for Parallel and Distributed Computing and published in the Proceedings of the 19th International Parallel and Distributed Processing Symposium*, Denver, CO: IEEE, Apr. 2005. DOI: `10.1109/IPDPS.2005.29`. [Online]. Available: ☑.

[155] K. Amin, G. von Laszewski, and A. R. Mikler, "Quality Assured Ad Hoc Grids," in *International Conference on Autonomic and Autonomous Systems International Conference on Networking and Services*, Papeete, Tahiti, French Polynesia: IEEE, Oct. 2005. DOI: `10.1109/ICAS-ICNS.2005.82`. [Online]. Available: ☑.

[156] K. Amin, M. Hategan, G. von Laszewski, e. J. NZaluzec, S. Hampton, and A. Rossi, "GridAnt: A Client-Controllable Grid Workflow System," in *37th Hawai'i International Conference on System Science*, The original paper is: von Laszewski, Gregor and Kaizar Amin and Shawn Hampton and Sandeep Nijsure. Technical report and Argonne National Laboratory and 31 July 2002. https://laszewski.github.io/papers/vonLaszewski-gridant.pdf., vol. 7, Big Island, HW: IEEE Computer Society, Los Alamitos, CA, USA, Jan. 2004. DOI: `10.1109/HICSS.2004.1265491`. [Online]. Available: ☑.

[157] J. D. Myers, T. C. Allison, S. Bittner, *et al.*, "A Collaborative Informatics Infrastructure for Multi-scale Science," in *Second International Workshop on Challenges of Large Applications in Distributed Environments*, Honolulu, HI, Jun. 2004, pp. 24–33. DOI: `10.1109/CLADE.2004.1309089`. [Online]. Available: ☑.

[158] K. Amin, G. von Laszewski, and A. R. Mikler, "Toward an Architecture for Ad Hoc Grids," in *12th International Conference on Advanced Computing and Communications (ADCOM 2004)*, Ahmedabad Gujarat, India, Dec. 2004. [Online]. Available: ☑.

[159] K. Amin, M. Hategan, G. von Laszewski, and N. J. Zaluzec, "Abstracting the Grid," in *Proceedings of the 12th Euromicro Conference on Parallel, Distributed and Network-Based Processing (PDP 2004)*, La Coruña, Spain, Feb. 2004, pp. 250–257. DOI: `10.1109/EMPDP.2004.1271452`. [Online]. Available: ☑.

[160] R. Al-Ali, G. von Laszewski, K. Amin, *et al.*, "QoS Support for High-performance Scientific Grid Applications," in *Proceedings of the IEEE/ACM 4th International Symposium on Cluster Computing and the Grid (CCGrid 2004)*, Chicago, IL, USA: IEEE Computer Society Press, Apr. 2004, pp. 134–143. DOI: `10.1109/CCGrid.2004.1336559`. [Online]. Available: ☑.

[161] B. Alunkal, I. Veljkovic, von Laszewski, Gregor, and K. Amin, "Reputation-based Grid Resource Selection," in *Workshop on Adaptive Grid Middleware*, AGridM 2003, New Orleans, Louisiana, Sep. 2003. [Online]. Available: ☑.

[162] R. Al-Ali, K. Amin, von Laszewski, Gregor, O. Rana, and D. Walker, "An OGSA-based Quality of Service Framework," in *Proceedings of the Second International Workshop on Grid and Cooperative Computing (GCC2003)*, Li, Minglu, Sun, *et al.*, Eds., ser. Lecture Notes on Computer Science, Shanghai, China: Springer Berlin / Heidelberg, Dec. 2004, pp. 529–540, ISBN: 978-3-540-21993-4. DOI: `10.1007/978-3-540-24680-0_88`. [Online]. Available: ☑.

[163] K. Amin, G. von Laszewski, and A. R. Mikler, "Grid Computing for the Masses: An Overview," in *Grid and Cooperative Computing (GCC2003)*, Shanghai, China, Dec. 2003, pp. 464–473. [Online]. Available: ☑.

[164] G. von Laszewski, B. Alunkal, J. Gawor, R. Madhuri, P. Plaszczak, and X.-H. Sun, "A File Transfer Component for Grids," in *Proceedings of the International Conferenece on Parallel and Distributed Processing Techniques and Applications*, H. Arabnia and Y. Mun, Eds., vol. 1, Las Vegas: CSREA Press, Jun. 2003, pp. 24–30. [Online]. Available: ➦.

[165] C. Pancerella, J. D. Myers, T. C. Allison, *et al.*, "Metadata in the Collaboratory for Multi-Scale Chemical Science," in *2003 Dublin Core Conference: Supporting Communities of Discourse, Practice-Metadata Research and Applications*, Seatle, WA, Sep. 2003, ISBN: 0974530301. [Online]. Available: ➦.

[166] S. Ananad, S. Yoginath, G. von Laszewski, and B. Alunkal, "Flow-based Multistage Co-allocation Service," in *Proceedings of the International Conference on Communications in Computing*, B. J. d'Auriol, Ed., Las Vegas: CSREA Press, Jun. 2003, pp. 24–30. [Online]. Available: ➦.

[167] B. Ruscic, R. E. Pinzon, M. L. Morton, *et al.*, "Further Refinements of the Bond Dissociation Energy in Water and Hydroxyl Radical Using the Active Thermochemical Tables Approach," in *Proceedings of the 58th International Symposium Molecular Sectrosctroscopy*, Columbus, OH, Jun. 2003, p. 178. [Online]. Available: ➦.

[168] G. von Laszewski, "Grid Computing: Enabling a Vision for Collaborative Research," in *The Sixth International Conference on Applied Parallel Computing*, Fagerholm, Juha, Haataja, *et al.*, Eds., ser. Lecture Notes in Computer Science, *(Invited Talk)*, vol. 2367, Espoo, Finland: Springer Berlin / Heidelberg, Jun. 2002, pp. 37–52, ISBN: 978-3-540-43786-4. DOI: 10.1007/3-540-48051-X_4. [Online]. Available: ➦.

[169] B. Plale, P. Dinda, and G. von Laszewski, "Key Concepts and Services of a Grid Information Service," in *15th International Conference on Parallel and Distributed Computing Systems (PDCS 2002)*, Louisville, KY, Sep. 2002, pp. 437–442. [Online]. Available: ➦.

[170] K. Amin, S. Nijsure, and G. von Laszewski, "Open Collaborative Grid Services Architecture (OCGSA)," in *Euroweb 2002 Conference and The Web and the GRID: from e-Science to e-Business*, St Anne's College Oxford, UK: The British Computer Society, Dec. 2002, pp. 101–107. DOI: 10.14236/ewic/ew2002.14. [Online]. Available: ➦.

[171] G. von Laszewski, J. Gawor, C. J. Peña, and I. Foster, "InfoGram: A Peer-to-Peer Information and Job Submission Service," in *Proceedings of the 11th Symposium on High Performance Distributed Computing*, ser. HPDC '02, Edinbrough, U.K.: IEEE Computer Society, Washington, DC, USA, Jul. 2002, pp. 333–342, ISBN: 0-7695-1686-6. [Online]. Available: ➦.

[172] X.-H. S. X. He and G. von Laszewski, "A QoS Guided Scheduling Algorithm for the Computational Grid," in *Proceedings of the International Workshop on Grid and Cooperative Computing (GCC02)*, Hainan, Chian, Dec. 2002. [Online]. Available: ➦.

[173] G. von Laszewski, E. Blau, M. Bletzinger, *et al.*, "Software, Component, and Service Deployment in Computational Grids," in *IFIP/ACM Working Conference on Component Deployment*, J. Bishop, Ed., ser. Lecture Notes in Computer Science, vol. 2370, Berlin, Germany: Springer-Verlag, London, UK, Jun. 2002, pp. 244–256, ISBN: 3-540-43847-5. [Online]. Available: ➦.

[174] G. v. Laszewski, B. Ruscic, P. Wagstrom, *et al.*, "A Grid Service-Based Active Thermochemical Table Framework," in *Third International Workshop on Grid Computing (GRID '02)*, ser. Lecture Notes in Computer Science, vol. 2536, Baltimore, MD: Springer-Verlag, London, UK, Nov. 2002, pp. 25–38, ISBN: 3-540-00133-6. [Online]. Available: ➦.

[175] G. von Laszewski, I. Foster, J. Gawor, P. Lane, N. Rehn, and M. Russell, "Designing Grid-based Problem Solving Environments and Portals," in *Proceedings of the 34th Annual Hawaii International Conference on System Sciences (HICSS-34)*, ser. HICSS '01, vol. 9, Maui, HW: IEEE Computer Society, Washington, DC, USA, Jan. 2001, pp. 9028–, ISBN: 0-7695-0981-9. [Online]. Available: ➦.

[176] M. Russell, G. Allen, I. Foster, *et al.*, "The Astrophysics Simulation Collaboratory: A Science Portal Enabling Community Software Development," in *Proceedings of the 10th IEEE International Symposium on High Performance Distributed Computing*, San Francisco, CA, Aug. 2001, pp. 207–215. DOI: 10.1109/HPDC.2001.945190. [Online]. Available: ➦.

[177] S. Verma, M. Parashar, J. Gawor, and G. von Laszewski, "Design and Implementation of a CORBA Commodity Grid Kit," in *Proceedings of the Second International Workshop on Grid Computing (GRID'01)*, C. A. Lee, Ed., ser. Lecture Notes in Computer Science, vol. 2241, Denver: Springer-Verlag, London, UK, Nov. 2001, pp. 2–12, ISBN: 3-540-42949-2. [Online]. Available: ➦.

[178] S. Vazhkudai and G. von Laszewski, "A Greedy Grid - The Grid Economic Engine Directive," in *Proceedings of the 15th International Parallel and Distributed Processing Symposium and International Workshop on Internet Computing and E-Commerce (ICEC'01)*, ser. IPDPS '01, http://dl.acm.org/citation.cfm?id=645609.662793, San Francisco, CA, USA: IEEE Computer Society, Washington, DC, USA, Apr. 2001, pp. 1806–1815, ISBN: 0-7695-0990-8. DOI: 10.1109/IPDPS.2001.925170. [Online]. Available: ☑.

[179] G. von Laszewski, K. Shudo, and Y. Muraoka, "Grid-based Asynchronous Migration of Execution Context in Java Virtual Machines," in *Proceedings of EuroPar 2000*, A. Bode, T. Ludwig, W. Karl, and R. Wismüller, Eds., ser. Lecture Notes in Computer Science, *(Invited Talk)*, vol. 1900, Munich, Germany: Springer, Aug. 2000, pp. 22–34. DOI: 10.1007/3-540-44520-X_3. [Online]. Available: ☑.

[180] G. von Laszewski, I. Foster, J. Gawor, W. Smith, and S. Tuecke, "CoG Kits: A Bridge between Commodity Distributed Computing and High-Performance Grids," in *Proceedings of the ACM 2000 conference on Java Grande*, ser. JAVA'00, San Francisco, CA, USA: ACM, New York, NY, USA, Jun. 2000, pp. 97–106, ISBN: 1-58113-288-3. DOI: 10.1145/337449.337491. [Online]. Available: ☑.

[181] Y. Wang, F. De Carlo, I. Foster, *et al.*, "Quasi-Realtime X-Ray Microtomography System at the Advanced Photon Source," in *Proceedings of SPIE99*, vol. 3772, Orlando, FL, Apr. 1999, pp. 318–327. DOI: 10.1117/12.363735. [Online]. Available: ☑.

[182] G. von Laszewski, M.-H. Su, J. A. Insley, *et al.*, "Real-Time Analysis, Visualization, and Steering of Microtomography Experiments at Photon Sources," in *Ninth SIAM Conference on Parallel Processing for Scientific Computing*, San Antonio, TX, Mar. 1999. [Online]. Available: ☑.

[183] G. von Laszewski and I. Foster, "Grid Infrastructure to Support Science Portals for Large Scale Instruments," in *Proceedings of the Workshop Distributed Computing on the Web (DCW)*, *(Invited Talk)*, University of Rostock and Germany, Jun. 1999, pp. 1–16. [Online]. Available: ☑.

[184] P. Stelling, I. Foster, C. Kesselman, C. Lee, and G. von Laszewski, "A Fault Detection Service for Wide Area Distributed Computations," in *Proceedings of the 7th IEEE International Symposium on High Performance Distributed Computing*, Chicago, IL, Jul. 1998, pp. 268–278. DOI: 10.1109/HPDC.1998.709981. [Online]. Available: ☑.

[185] G. von Laszewski, M. L. Westbrook, C. Barnes, and I. Foster, "Supercomputing Data Analysis with an Example on the APS CATs," in *International Workshop on New Opportunities for Better User Group Software (NOBUGS)*, Argonne, IL, Dec. 1997.

[186] S. Fitzgerald, I. Foster, C. Kesselman, G. von Laszewski, W. Smith, and S. Tuecke, "A Directory Service for Configuring High-Performance Distributed Computations," in *Proceedings of the 6th IEEE Symposium on High-Performance Distributed Computing*, Portland, OR, Aug. 1997, pp. 365–375. DOI: 10.1109/HPDC.1997.626445. [Online]. Available: ☑.

[187] G. von Laszewski, "An Interactive Parallel Programming Environment Applied in Atmospheric Science," in *Making Its Mark and Proceedings of the 6th Workshop on the Use of Parallel Processors in Meteorology*, G.-R. Hoffman and N. Kreitz, Eds., European Centre for Medium Weather Forecast, Reading, UK: World Scientific, Dec. 1996, pp. 311–325, ISBN: 978-9810233501. [Online]. Available: ☑.

[188] G. von Laszewski, M. Seablom, M. Makivic, P. Lyster, and S. Ranka, "Design Issues for the Parallelization of an Optimal Interpolation Algorithm," in *Coming of Age and Proceedings of the 4th Workshop on the Use of Parallel Processing in Atmospheric Science*, G.-R. Hoffman and N. Kreitz, Eds., European Centre for Medium Weather Forecast, Reading, UK: World Scientific, Nov. 1994, pp. 290–302. [Online]. Available: ☑.

[189] G. von Laszewski, M. Parashar, G. A. Mohamed, and G. C. Fox, "On the Parallelization of Blocked LU Factorization Algorithms on Distributed Memory Architectures," in *Proceedings of the 1992 ACM/IEEE Conference on Supercomputing*, ser. Supercomputing '92, vol. 92, Minneapolis, Minnesota, USA: IEEE Computer Society Press, 1992, pp. 170–179, ISBN: 0818626305. [Online]. Available: ☑.

[190] G. von Laszewski, "Intelligent Structural Operators for the k-way Graph Partitioning Problem," in *Proceedings of the 4th International Conference on Genetic Algorithms*, (Plenary presentation), San Diego, CA: Morgan Kaufman, Jul. 1991, pp. 45–52, ISBN: 1-55860-208-9. [Online]. Available: ☑.

[191] G. von Laszewski, Mühlenbein, and Heinz, "Partitioning a graph with a parallel genetic algorithm," in *1st International Workshop on Parallel Problem Solving from Nature*, Schwefel, Hans-Paul, Männer, and Reinhard, Eds., ser. Lecture Notes in Computer Science, 1-3 Oct 1990, vol. 496, Dortmund, Germany: Springer Berlin / Heidelberg, Oct. 1991, pp. 165–169, ISBN: 978-3-540-54148-6. DOI: 10.1007/BFb0029748. [Online]. Available: ☑.

[192] G. von Laszewski, "A Parallel Genetic Algorithm for the Graph Partitioning Problem," in *Transputer Research and Applications 4 and Proceedings of the 4th Conference of the North-American Transputers Users Group*, D. Fielding, Ed., Ithaca, NY: IOS Press, Amsterdam, Oct. 1990, pp. 164–172. [Online]. Available: ✪.

THESIS

[193] G. von Laszewski, "A Parallel Data Assimilation System and Its Implications on a Metacomputing Environment," AAI9737816, Ph.D. dissertation, USA, 1996, ISBN: 0591478021. [Online]. Available: ✪.

SELECTED REFEREED POSTERS AT MAJOR CONFERENCES

[194] G. Fox and von Laszewski Gregor, "Ai for science and engineering," in *NSF Meeting*, Poster, Oct. 2023. [Online]. Available: ✪.

[195] A. Sakar, N. Perera, G. von Laszewski, M. Staylor, and G. C. Fox, "Heterogeneous datapipelines for scientific computing," in *2023 OLCF User Meeting*, Poster, Oak Ridge National Laboratory, Knoxville, TN, Oct. 2023. [Online]. Available: ✪.

[196] G. C. Fox, A. J. Younge, G. von Laszewski, A. Kulshrestha, and F. Wang, *Rain: Dynamically Provisioning Clouds within FutureGrid*, SC10 International Conference for High Performance Computing, Nov. 2010.

[197] M. P. Thomas, L. C. J. Burruss, G. C. Fox, *et al.*, *Grid Portal Architectures for Scientific Applications*, DOI SciDAC Meeting 2005 (Poster), San Francisco, CA, Jun. 2005. [Online]. Available: ✪.

[198] T. C. Allison, S. Bittner, B. Didier, *et al.*, *Collaboratory for Multi-scale Chemical Science*, DOI SciDAC PI Meeting (Poster), Charleston, SC, Mar. 2004.

[199] G. von Laszewski and K. Jackson, *Commodity Grid Kits*, DOI SciDAC PI Meeting (Poster), Charleston, SC, Mar. 2004. [Online]. Available: ✪.

[200] D. McMullen, R. Bramley, J. C. Huffman, J. Bollinger, E. D. amd Kia Huffman, and G. vonLaszewski, *The Xport collaboratory for high-brilliance X-ray crystallography*, SC Poster, 2000. [Online]. Available: ✪.

REPORTS

[201] B. Hawks, G. von Laszewski, M. D. Sinclair, *et al.*, *An mlcommons scientific benchmarks ontology*, 2025. arXiv: 2511.05614 [cs.LG]. [Online]. Available: ✪.

[202] G. von Laszewski, W. Brewer, J. Thiyagalingam, *et al.*, *Ai benchmark democratization and carpentry*, 2025. arXiv: 2512.11588 [cs.AI]. [Online]. Available: ✪.

[203] G. von Laszewski, B. Hawks, M. Colombo, *et al.*, *MLCommons Science Working Group AI Benchmarks Collection*, GitHub, Online Collection: ✪, Jun. 2025. [Online]. Available: ✪.

[204] M. Staylor, A. K. Sarker, G. von Laszewski, G. Fox, Y. Cheng, and J. Fox, *Combining serverless and high-performance computing paradigms to support ml data-intensive applications*, 2025. arXiv: 2511.12185 [cs.DC]. [Online]. Available: ✪.

[205] G. von Laszewski, W. Brewer, S. R. Wilkinson, *et al.*, *Towards experiment execution in support of community benchmark workflows for hpc*, 2025. arXiv: 2507.22294 [cs.DC]. [Online]. Available: ✪.

[206] A. K. Sarker, A. Alsaadi, N. Perera, *et al.*, *Design and implementation of an analysis pipeline for heterogeneous data*, 2024. arXiv: 2403.15721 [cs.DC]. [Online]. Available: ✪.

[207] M. Minutoli, R. Neff, N. Sattar, *et al.*, "Ripples: Exascale-enabled influence maximization on massive social networks with implications to pandemic planning," University of Virginia, Charlottesville, VA, USA, Tech. Rep., Nov. 2023.

[208] N. Perera, A. K. Sarker, M. Staylor, *et al.*, *In-depth analysis on parallel processing patterns for high-performance dataframes*, 2023. arXiv: 2307.01394 [cs.DC].

[209] G. von Laszewski, J. Fleischer, and G. C. Fox, *Hybrid reusable computational analytics workflow management with cloudmesh*, 12 pages, 2023. arXiv: 2210.16941 [cs.DC]. [Online]. Available: ✪.

[210] G. von Laszewski, W. Chang, R. Reinsch, *et al.*, *Whitepaper on reusable hybrid and multi-cloud analytics service framework*, 2023. arXiv: 2310.17013 [cs.DC]. [Online]. Available: ☑.

[211] V. Chennamsetti, G. von Laszewski, R. Gu, *et al.*, *Mlcommons cloud masking benchmark with early stopping*, 2024. arXiv: 2401.08636 [cs.DC]. [Online]. Available: ☑.

[212] G. von Laszewski and R. Gu, *An overview of mlcommons cloud mask benchmark: Related research and data*, 2023. arXiv: 2312.04799 [cs.DC]. [Online]. Available: ☑.

[213] G. von Laszewski, W. Chang, R. Reinsch, *et al.*, "Whitepaper on reusable hybrid and multi-cloud analytics service framework," in *arxiv*, submitted, Oct. 2023. [Online]. Available: ☑.

[214] G. von Laszewski, J. P. Fleischer, and G. C. Fox, *Hybrid reusable computational analytics workflow management with cloudmesh*, Nov. 2022. DOI: 10.48550/ARXIV.2210.16941. [Online]. Available: ☑.

[215] J. Fleischer, G. von Laszewski, C. Theran, and Y. J. P. Bautista, *Time series analysis of blockchain-based cryptocurrency price changes*, 2022. DOI: 10.48550/ARXIV.2202.13874. [Online]. Available: ☑.

[216] G. von Laszewski and F. Wang, *Scientific impact report repository*, GitHub, Nov. 2021. [Online]. Available: ☑.

[217] G. C. Fox, G. von Laszewski, F. Wang, and S. Pyne, "AICov: An Integrative Deep Learning Framework for COVID-19 forecasting with population covariates," *CoRR*, vol. abs/2010.03757, 2020. arXiv: 2010.03757. [Online]. Available: ☑.

[218] G. von Laszewski, A. Orlowski, R. Otten, *et al.*, "Towards Automatically Generated Hybrid Multi-Cloud AI Services," Indiana University, UROC report, 2020. [Online]. Available: ☑.

[219] G. von Laszewski, B. Abdul-Wahid, F. Wang, *et al.*, "Cloudmesh in support of the NIST Big Data Architecture Framework," Indiana University, Bloomingtion, IN 47408, USA, Tech. Rep., 2017.

[220] L. Saggu, S. Ekanayake, Y. Ruan, G. von Laszewski, and G. C. Fox, "Genomic Sequence Analysis Automation," Indiana University, Tech. Rep., Jul. 2014, Poster. [Online]. Available: ☑.

[221] H. Lee, G. von Laszewski, F. Wang, and G. C. Fox, "Towards understanding cloud usage through resource allocation analysis on xsede," Indiana University, Bloomington, IN, Tech. Rep., Mar. 2014. [Online]. Available: ☑.

[222] F. Desprez, G. Fox, K. K. Emmanuel Jeannot, *et al.*, "Supporting Experimental Computer Science," Argonne National Laboratory, Argonne, Report, Mar. 2012. [Online]. Available: ☑.

[223] J. Diaz, G. von Laszewski, F. Wang, and G. C. Fox, "Towards cloud deployments using futuregrid," Tech. Rep., 2011. [Online]. Available: ☑.

[224] L. Wang, G. von Laszewski, M. Kunze, and J. Tao, "A cumulus project: design and implementation," Rochester Institute of Technology, Report, 2008. [Online]. Available: ☑.

[225] L. A. Rahn, C. M. Pancerella, M. C.-C. Chen, *et al.*, "Collaboratory for Multi-scale Chemical Science (CMCS): Project Final Report.," Tech. Rep., Jul. 2006. [Online]. Available: ☑.

[226] E. Puryear, D. Angulo, A. Schilling, K. Drew, and G. von Laszewski, "Comparing mass spectra," DePaul University CTI Tech Report, Tech. Rep., 2006, pp. 1–7.

[227] C. Stejerean1, P. Siwamutita, E. D. Frank, *et al.*, "An End-to-End System for Organizing, Sharing Raw and Derived Mass Spectrometry Data," Tech. Rep., 2006. [Online]. Available: ☑.

[228] E. Puryear, D. Angulo, K. Drew, G. von Laszewski, and A. Schilling, "The Enhanced Mass Spectrometry I/O Project," DePaul University, Tech. Rep., 2006. [Online]. Available: ☑.

[229] J. van Puymbrouck, D. Angulo, Drew, *et al.*, "A Batch Import Module for an Empirically Derived Mass Spectral Database," *DePaul University CTI Tech Report*, 2006. [Online]. Available: ☑.

[230] E. Puryear, D. Angulo, K. Drew, A. Schilling, and G. von Laszewski, "Developing a Distributed and Scalable Foundation for Mass Spectrometry Data," DePaul University CTI Tech Report, Tech. Rep., 2005, pp. 1–7. [Online]. Available: ☑.

[231] G. von Laszewski and M. Hategan, "Java cog kit karajan/gridant workflow guide," Technical Report, Argonne National Laboratory, Argonne, IL, USA, Tech. Rep., 2005. [Online]. Available: ☑.

[232] G. von Laszewski and M. Hategan, *Grid Workflow – An Integrated Approach*, 2005. [Online]. Available: ☑.

[233] D. Gannon, G. Fox, M. Pierce, *et al.*, "Grid portals: a scientist's access point for grid services," Tech. Rep., 2003.

[234] G. von Laszewski, "Java CoG Kit Workflow Concepts for Scientific Experiments," Argonne National Laboratory, Tech. Rep., 2003. [Online]. Available: ☑.

[235] S. Krishnan, P. Wagstrom, and G. von Laszewski, "GSFL: A workflow framework for grid services," *Preprint ANL/MCS-P980-0802 and Argonne National Laboratory*, vol. 9700, pp. 25–31, 2002. [Online]. Available: ☑.

[236] S. Verma, J. Gawor, G. von Laszewski, and M. Parashar, "Status of a Bridge between CORBA and Globus," Argonne National Laboratry, Tech. Rep., 2001. [Online]. Available: ☑.

[237] O. F. Rana, A. Shaikhali1, and G. von Laszewski, "Creating and Managing Grid Services," Argonne National Lab, Argonne, IL, Technical Report, Aug. 2000. [Online]. Available: ☑.

[238] G. von Laszewski and I. Foster, "Usage of LDAP in Globus," *Mathematics and Computer Science Division and Argonne National Laboratory*, 1998. [Online]. Available: ☑.

[239] G. von Laszewski, "A collection of graph partitioning algorithms," Citeseer, Tech. Rep., 1993. [Online]. Available: ☑.

[240] G. von Laszewski, "The Parallelization of a Weather Prediction Model," Technical Report SCCS 533 and Northeast Parallel Architectures Center at Syracuse University, Tech. Rep., 1993. [Online]. Available: ☑.

[241] A. G. Mohamed, G. C. Fox, G. von Laszewski, *et al.*, "Applications Benchmark Set for Fortran-D and High Performance Fortran," Center for Research on Parallel Computation, Rice University, P.O. Box 1892, Houston, TX 77251-1892, Tech. Rep. CRPC-TR92260, Jun. 1992. [Online]. Available: ☑.

SELECTED INVITED TALKS AND PRESENTATIONS

1. Gregor von Laszewski, Reusable Hybrid and Multi-Cloud Analytics Service Framework, 4th International Conference on Big data, IoT, and Cloud Computing (ICBICC 2022)

2. Gregor von Laszewski, Research projects in Data Science, FAMU, Florida, Summer 2021.

3. Data Analytics with the Big Data NIST Reference Architecture. Gregor von Laszewski, IndyPy – PyData Indy 2019. Video URL: ☑

4. BigData 2017 MIDAS and SPIDAL Tutorial . Geoffrey Fox, David Crandall, Judy Qiu, Gregor Von Laszewski, Shantenu Jha, John Paden, Oliver Beckstein, Tom Cheatham, Madhav Marathe, Fusheng Wang, Bari Italy February 13-14 2017 ☑

5. Cloudmesh Virtual Cluster Management for Data-Intensive Applications, Gregor von Laszewski, DePy 2015 1st Annual Conference on Python applications in Data Analysis, Machine Learning, and Web, Chicago, Ill, May 29-30 2015. Video ☑

6. Cloudmesh, HPCS2014 Halifax, Nova Scotia, CA, June 25- 27, 2014

7. FutureGrid, OpenCirrus Meeting, Oct 2011, Georgia Tech

8. Panelist: Opportunities of Services Business in Cloud Age at Cloud2011, 7/8/2011

9. Green Computing, IUPUI, Indianapolis, IU Energy Conference, Aug 6-7, 2009.

10. Towards GreenIT, Indiana University, July, 2009.

11. Grids for Synchrotrons, ESRF Grenoble, ☑, Dec 8, 2008.

12. Cyberinfrastucture Research. 2008, University of Albany

13. Scientific Workflows. 2008, Research Computing and NYSGrid via Access Grid, Rochester Institute of Technology

14. Cyberinfrastucture Workflows. 2008, CCRG Rochester Institute of Technology

15. Cyberinfrastucture Research. 2007, IBM Raleigh

16. Grid Workflows, 2007, Georgia Tech

17. Grid Workflows, 2007, University of Buffalo

18. CoG Kits: an opportunity for Collaboration, October 2006, Southern Illinois University

19. The use of XML in Grids, September 2006, Loyola University Evolution of Grid Computing with education experiences, SC07 Educational Planning Workshop, July 27-30, Argonne National Laboratory.

20. Active Thermochemical Table Infrastructure, CMCS Workshop, Urbana, IL, June 7-8, 2006.

21. Scientific Process Management, NIH, Washington DC, Feb. 3, 2006.

22. April 2005, Georgia Tech, Java CoG Kit

23. Grid Workflow with the Java CoG Kit 4. TACC, Austin, TX, 13 May 2005.

24. Grid Programming Patterns with the Java CoG Kit 4. GlobusWorld, Boston, Massachusetts, 7-11 February 2005.

25. Workflow support in the Java CoG Kit 4. Boston, Massachusetts, 7-11 February 2005.

26. Keynote: CoG Kit Abstractions. Workshop on Grid Application Programming Interfaces in conjunction with GGF12, Brussels, Belgium, 20 September 2004. (Keynote).

27. Java cog kit workflow abstractions. GGF Workshop Management Working Group, GGF11 The Eleventh Global Grid Forum, Honolulu, Hawaii USA, 6-10 June 2004. (Presentation).

28. GridAnt. GlobusWorld, San Francisco, 20 January 2004.

29. Grid computing. Illinois Institute of Technology, October 2004.

30. The State of Grid Computing in the U.S.A. In Grid Symposium of the Ministry of Science, Germany. Wissenschaftszentrum, Bonn, 28 November 2002. (Invited Talk).

31. The Science of Collaboratories Workshop Series The State of Collaboratory Tools and Technologies, Sponsored by the University of Michigan and the National Science Foundation. Ann Arbor, Michigan, 19-20 July 2001. (Invited Participant).

32. HPC Consortium Meeting, GridSIG, Sun Microsystems. Status of the Globus Project, Heidelberg, Germany, 19-20 June 2001. (Invited Talk).

33. The Use of Java in High Performance Computing. In EuroPar 2000, Munich, Germany, 30 August 2000. (Panelist).

34. Application Programming in the Grid. Europar2000, Munich, Germany, August 28 September 1 2000.

35. Unicore and Globus. Unicore Meeting, Juelich, Germany, Sept 2000.

36. Building Portals with Java. Computing Portals Workshop, San Francisco, CA, 78 December 2000.

37. Gregor von Laszeswki. Using Java in Grids. In High Performance Computing and Java, number 284 in Seminar 341, Dagstuhl, Germany, 2025 August 2000. International Conference and Research Center for Computer Science. (Invited Talk)

38. Building Portals with CoG. Science Portals Workshop, Urbana, IL, 22-23 September 1999.

39. Information Services for the Common Component Architecture. Knoxville, TN, July 1999.

40. Application programming in the Grid. Aachen, Germany, September 1999.

41. Studying and Working in the U.S.A. Aachen, Germany, September 1999.

42. A Grid-based Computing Portal. Alliance Chemistry Portals Meeting, Urbana, IL, August 15 2000.

43. Using Globus and Java on Clusters and Grids. In International Workshop on Global and Cluster

44. Computing (WGCC2000), Tsukuba, Japan, 15-17 March 2000. (Invited Talk).

45. Panel on Commodity Technologies and Grid, ISCOPE 99, December 1999. (Panelist).

46. The Globus Grid Infrastructure. Julich, Germany, September 1999. (Invited Talk).

47. Dattor, Gridforum, and Computing Portals. Julich, Germany, September 1999. (Invited Talk).

48. Recent Development in the Globus Project. In 3rd HLRS Metacomputing Workshop, Stuttgart Germany, 6-7 June 2000. (Invited Talk).

49. JavaGrande Meeting at Supercomputing. Orlando, FL, November 1998. (Panelist).

50. Recent Development in the Globus Project. In 2nd Symposium on Multidisciplinary Environments And Applications, MAPINT 98/MDICE Workshop, Dayton, Ohio USA, August 1998. Aeronautical Systems Center (ASC), Major Shared Resource Center (MSRC), and Wright Patterson AFB. (Invited Talk).

51. Reusable Components of Globus-J , October 1998. Workshop of Desktop Access to Remote Resources,

52. JavaGrande Forum and Argonne National Laboratory, Chicago, IL.

53. SC98 BoF: Java Grande. ⬀, Orlando, FL, November 1998. (Panelist).

54. Gregor von Laszewski, Mary L. Westbrook, Craig Barnes, and Ian Foster. Supercomputing Data Analysis with an Example on the APS CATs. In International Workshop on New Opportunities for Better User Group Software (NOBUGS). Argonne, IL, December 1997.

55. The Globus Project: A Metacomputing Toolkit for Multidisciplinary Applications. In 1st Symposiumon Multidisciplinary Environments and Applications, MAPINT '97/MDICE Workshop, Dayton, Ohio USA, August 1997. Aeronautical Systems Center (ASC), Major Shared Resource Center (MSRC), and Wright Patterson AFB. (Invited Talk).

56. Using the Globus Metacomputing Toolkit for Seamless Computing. Supercomputing Center at ECMWF, Reading, UK, December 1997. (Invited Talk).

57. Introduction to Java. Illinois Institute of Technology, May 1997.

58. Introduction to Genetic Algorithms. Argonne National Laboratory, Summer Program, July 1998.

59. Parallel Optimal Interpolation. NASA Goddard Space Flight Center, June 1996.

SELECTED SEMINARS AND COLLOQUIA

1. Tutorial: FutureGrid TG11, 2011

2. Overview of FutureGrid, PTI, 2010.

3. JavaScript CoG Kit, Teragrid 2009.

4. Building Commodity Grids. In CHEF Workshop. University of Michigan, Ann Arbor, 1415 October 2002.

5. Grid Computing: A Collaborative Approach. In Collaborative and Distance Learning Technologies (CDLT) Day at U.S. Army Engineering Research and Development Center (ERDC), Vicksburg, MS, 29 October 2002. (Invited Talk).

6. Gregor von Laszewski, Nestor J. Zaluzec, and Xian He Sun. Computationally Mediated Experimental Science. The Illinois Institute of Technology Inter-professional Projects Program, IPRO305, Fall 2002. A project-oriented class.

7. Gregor von Laszewski and Xian He Sun. CS595: Grid and Ubiquitous Computing. Illinois Institute of Technology, Chicago, IL, Spring 2002. Course material, teaching, and project supervision.

8. Gregor von Laszewski. Java CoG Kit Tutorial at the Joint ACM Java Grande ISCOPE 2002 Conference. Seattle, Washington, 3 November 2002.

9. Gregor von Laszewski. The Importance of CoG Kits for Grid Users. Globus Retreat, Chicago, IL, 2001.

10. Gregor von Laszewski. The Java Cog Kit. Globus Retreat, Chicago, IL, 2001.

11. Global Grid Forum. Introduction to the Global Grid Forum Information Services Working Group, Amsterdam, The Netherlands, 2 March 2001.

12. IPDPS 2001. Grid Computing, Globus, and Java Interface to the Grid, San Francisco, CA, 27 April 2001. ⬀.

13. Vladimir Getov, Jose E. Moreira, Roldan Pozo, and Gregor von Laszewski. Java for High-Performance Computing. In Java One Conference and Java Grande Conference, San Fransisco, CA, 2 June 2001.

14. International Symposium in High Performance and Distributed Computing. High Performance and Grid Programming in Java and Python, San Francisco, CA, 6 August 2001. Gregor von Laszewski and Steve Fitzgerald. The Globus Grid Programming Toolkit. Tutorial at SC99, Portland, OR, 1319 November 1999.

15. Gregor von Laszewski and Steven Fitzgerald. The Globus Grid Programming Toolkit. The 7th IEEE Symposium on High-Performance Distributed Computing, July 1998.

16. Introduction to the Metacomputing Toolkit. High-Performance Computing Tutorial, The National Center for Supercomputing Applications, University of Illinois at Urbana Champaign, April 1998.

17. Gregor von Laszewski, Mary L. Westbrook, Craig Barnes, and Ian Foster. Supercomputing Data Analysis with an Example on the APS CATs. In International Workshop on New Opportunities for Better User Group Software (NOBUGS). Argonne, IL, December 1997.

18. Using LDAP in the real world. De Paul University, Chicago, IL, January 2000.

19. Gregor von Laszewski. The Java CoG Kit. Globus Retreat, Pittsburgh, PA, July 30 August 1 2000

SELECTED COMMUNITY ACTIVITIES

My community activities involve a wide variety of activities, including program committees, grant reviews, community education, advisory board. Most recently, however, I have refocussed the community activities while spending my time voluntarily on educational activities of the community. This includes extraordinary efforts with STEM students, undergraduates and Graduate students. This effort has been most rewarding as I have seen many students accelerating in their educational quest and excellence manifested by several awards.

Selected Project and Proposal Review Panel Activities

1. STEM: Taught Programming to a team of elementary school children 5th and 6th graders that won 2nd place in the regional FLL competition 2015 (remarkable due to the ages while the winning team was high school)

2. Reviewer for Fonds National de la Recherche – Luxembourg, 2014

3. Member of the International Advisory Board of Cybera, Alberta, CA, 2008 - present.

4. Member of the Unicore Review Committee of the German Ministry of Science, Germany. Wissenschaftszentrum, Bonn, Nov. 27 2000-2002.

5. Review Committee for The Engineering and Physical Sciences Research Council (EPSRC), UK. ⬀.

6. NSF Review Panels, 2004.

7. DOE proposal reviews, 2002, 2003, 2004, 2005, 2006.

8. GCE08 Steering Committee

Chair and Steering Committee

1. 2016 IEEE International Conference on Cloud Engineering Workshop (IC2EW).

2. 1109/IC2EW.2016.66

3. CCGrid2015, CCGrid2016, Committee Member

4. CloudCom 2014, Track Chair

5. ICCCT-2014, 5th International Conference on Computer and Communication Technology, Reviewer

6. CAC 2013, Track Chair

7. Workshop on Federated Clouds 2012 and 8th OpenCirrus Summit, (Co-Chair, Program Co-chair, Proceedings editor)

8. Dagstuhl Seminar Mar 2009 (Co-Chair).

9. GCE08 in conjunction with SC08, co-Chair

10. GCE07 Steering Committee

11. Grid 2007, Program vice-chair, Austin, TX collocated with Cluster 2007, Sept 17 - 21 in 2007

12. GCE06 in conjunction with SC06, Chair

13. Minisymposium on Grid Workflow, Globus World, San Francisco, 20 January 2004. Chair.

14. Minisymposium on Grid Workflow. Gregor von Laszewski and Ewa Delman. San Francisco, CA, 2023 January 2003. Chair.

15. Global Grid Forum Grid Information Services Working Group/Area Chair. 2001 - 2002.

16. Grid Forum Grid Information Services Working Group/Area Chair. 2000 - 2001.

17. GIS Working Group. GGF 2, Vienna, VA, July 1518 2001. Chair.

18. GIS Working Group. GGF 1, Amsterdam, NL, March 29 2001. Chair.

19. Joint ACM Java Grande ISCOPE 2001 Conference. Stanford University, California, June 24 2001. Committee and Tutorials Chair.

20. Second Workshop on Desktop Access to Remote Resources. Sandia National Laboratory, Albuquerque, NM, 15-16 February 1999. Steering Committee.

21. First Workshop Desktop Access to Remote Resources, 89th October 1998. Steering Committee and Chair.

22. Computing Portals Workshop and 3rd International Workshop on Desktop Access to Remote Resources. Together with Computing Portals Working Group (Datorr), Java Grande Forum, and The 3rd International Symposium on Computing in Object-Oriented Parallel Environments, San Francisco, California, U.S.A., 7 December 1999. Steering Committee and Chair.

23. IEEE Task Force on Cluster Computing. 1998-2000. Advisory Committee.

24. SC98 BoF: Desktop Access to Remote Resources. Gregor von Laszewski. Orlando, FL, November 1998.

25. Organizer of the BoF. Supercomputing SC93. Portland, OR, Nov. 15-19 1993. Best Student Paper Selection Committee.

Selected Committee Review Activities

1. Committee Co-chair CloudCom2012 in the topic Cloud Computing on HPC, 2014.

2. 4th Workshop on Scientific Cloud Computing (ScienceCloud) 2013 June 17th, 2013, New York City, NY, USA (Committee).

3. IEEE CloudCom 2012, 2011, 2010 (Committee).

4. ITSM2012 (Committee)

5. PPAM2011 (Committee).

6. TerraGrid 2010 (Awards Committee)

7. FGMMS2010 (Committee).

8. CCGrid 2010, 2008, 2007, 2006, 2005 (Committee) in conjunction with SC'.

9. GCE, 2010, 2009, 2005 (Committee).

10. ICPADS, 2010 (Committee).

11. IGCC 2010 (Committee).

12. IPDPS 2009, 2008 (Committee).

13. Grid 2009, 2007 (Committee).

14. Cluster 2009

15. TeraGrid 2009 (Student Mentor).

16. GCE08 (Committee and co-Chair).

17. Euro-Par 2008 (Committee).

18. ICPADS'2007. 13th International Conference on Parallel and Distributed Systems, December 5 - 7, 2007 at National Tsing Hua University , Hsinchu , Taiwan. (Committee).

19. High-Performance Computing Symposium (HPC 2007) Norfolk, VA (Committee).

20. CCGrid2007 (Committee).

21. HPC 2007: High Performance Computing Symposium, ⬈, March 25-29, 2007 (Committee)

22. 2-nd IEEE International Conference on e-Science and Grid Computing, Dec. 4- 6, 2006, Amsterdam, Netherlands, (Committee).

23. IEEE 2006 International Symposium on Modern Computing, 3-6 October 2006, Sofia, Bulgaria, (Committee)

24. Grid2006, (Committee)

25. ICCGI06 International Multi-Conference on Computing in the Global Information Technology, March 15, August 1-3, 2006, Bucharest, Romania, (Advisory Committee)

26. Supercomputing, SC06, SC03, SC00, SC98, SC97, SC95.

27. PPAM 2005, Sixth International Conference on Parallel Processing and Applied Mathematics.

28. IPDPS, 19th IEEE International Parallel and Distributed Processing Symposium. Denver, Colorado, 48 April 2005.

29. EuroPar 2006, 2005

30. Coordination Abstractions for Worldwide Computing, Software Technology Mini-Track, HICSS-38, Jan. 2005.

31. Third International Symposium on Automated Technology for Verification and Analysis, Taipei, Taiwan, 4-7 October 2005.

32. International Conference on eScience and Grid Technologies 2005. Melbourne, Australia, 5-8 December 2005.

33. 6th IEEE/ACM International Workshop on Grid Computing (Grid 2005) held in conjunction with SuperComputing 2004. Seattle, WA,Nov. 2005.

34. Challenges of Large Applications in Distributed Environments (CLADE). Honolulu, HI, 7 June 2004.

35. Workshop on Component Models and Systems for Grid Applications, held in conjunction with ICS 2004: 18th Annual ACM International Conference on Supercomputing, Saint-Malo, France, June 26-July 1, 2004.

36. EuroPar 2004. Pisa, Italy, 31 Aug.3rd Sept. 2004.

37. BioGrid'04, Second International Workshop on Biomedical Computations on the Grid, held in conjunction with, 4-th IEEE/ACM International Symposium on Cluster Computing and the Grid, Chicago, Illinois, USA, April 19-22, 2004

38. Workshop on Component Models and Systems for Grid Applications, Held in conjunction with ICS 2004, 18th Annual ACM International Conference on Supercomputing. SaintMalo, France, June 26 July 1 2004.

39. 5th IEEE/ACM International Workshop on Grid Computing (Grid 2004) held in conjunction with SuperComputing 2004. Pittsburgh, USA, 8 November 2004.

40. Advanced Computing and Communications ADCOM2004. Ahmedabad Gujarat, India, 15-18 December 2004.

41. IPDPS 2003, International Parallel and Distributed Processing Symposium (IPDPS). Nice, France, 26 April 2003.

42. International Conference on Machine Learning and Cybernetics 2003.

43. The Eleventh International Conference on Parallel Architectures and Compilation Techniques. Charlottesville, Virginia, September 22-25 2002.

44. SAINT2002. The 2002 Symposium on Applications and the Internet. Nara City, Nara, Japan, 28 Jan -1 Feb 2002.

45. The 2002 Symposium on Applications and the Internet. Nara City, Nara, Japan, 28 Jan 1 Feb 2002.

46. Joint ACM Java Grande and ISCOPE 2002 Conference. Seattle, Washington, November 3-5 2002.

47. CCGrid 2002, 2nd IEEE/ACM International Symposium on Cluster Computing and the Grid. Berlin, Germany, 21-24 May 2002.

48. 1st IEEE/ACM International Symposium on Cluster Computing and the Grid. Brisbane, Australia, 15-18 May 2001.

49. EuroPar 2001. Manchester, UK, http://europar.man.ac.uk/, 2831 August 2001.

50. IPDPS 2001, International Parallel and Distributed Processing Symposium . San Fransisco, CA, 27 April 2001. 🔗

51. Second International Workshop on Infrastructure for Agents, MAS, and Scalable MAS. The 5th International Conference on Autonomous Agents, Montreal, Canada, May 28 - June 1 2001. 🔗

52. Java in High-Performance Computing at HPCN Europe 2001 Conference. Amsterdam, The Netherlands,

53. ACM Java Grande 2000 Conference. San Francisco, California, June 3-5 2000.

54. International Workshop on Metacomputing Systems and Applications. Toronto, August 2124 in conjunction with the 29th International Conference on Parallel Processing, August 21 2000.

55. Ninth SIAM Meeting on Parallel Processing. Minisymposium on Innovative Wide Area Applications, San Antonio, TX, 2224 March 1999. Session Host.

56. International Conference on Parallel and Distributed Processing Techniques and Applications. Las Vegas, Nevada, USA, June 30 - July 2 1999.

57. International Telemedical Information Society (ITIS) Symposium, 1998.

58. PDPTA 1998. Las Vegas, Nevada, August 1998. Session Host.

59. Supercomputing SC93. Portland, OR, Nov. 15-19 1993.

60. Java for High-Performance Networking, 1997, 1998, 1999, 2000, 2001.

Journal Article Reviews

1. Journal for Grid Computing.

2. Concurrency and Computation: Practice and Experience.

3. IEEE Concurrency.

4. Parallel Computing

5. Computing in Science and Engineering

6. Journal of International Telemedical Information Society (ITIS) Letters.

SOFTWARE DEVELOPED

Selected Current Software and Online Projects

Defining schemas for the grid information services

[242]   G. von Laszewski and G. Fox, *Cybertraining publications*, Web Page, Aug. 2021. [Online]. Available: ☑.

[243]   G. Laszewski, *Cyberaide Bookmanager*, PyPI and GitHub, Feb. 2020. [Online]. Available: ☑.

[244]   G. von Laszewski, *Cloudmesh Community*, GitHub, Feb. 2020. [Online]. Available: ☑.

[245]   G. Laszewski, *Cloudmesh Code Repositories*, GitHub, Feb. 2020. [Online]. Available: ☑.

[246]   Digital Science Lab, *FutureSystems at Indiana University*, 2015. [Online]. Available: ☑.

1. More than 70 projects at Cloudmesh Code Repositories, 2021-04, ☑

2. More than 174 projects at Cloudmesh Community 2021-04, ☑

3. Cloudmesh for SDSC virtual cluster project (Architect of client)

4. FutureGrid Software (Architect)

5. FutureGrid Image Management (Architect)

6. FutureGrid Cloud Accounting (Architect)

7. TAS XDMoD (accounting report generator, software science impact)

Selected Completed projects

AdHoc Workflows; Grid Desktop GridFTP user interface; GridRLS user interface; GridAnt; Grid Certificate Authority; Qstat Monitor for Cobalt and PBS queuing systems; GSFL – Grid Service Flow Language; Cyberaide; Gridshell; Grid MS Project; Java CoG Kit; GridScript; GridWorkflow (Karajan); GridTorrent; Adaptive workflows for threat management analysis; Real-time analysis of advanced photon source data; Coordination of fast nuclear reactor simulations; Developed a sophisticated Metacomputing environment allowing seamless uses of multiple supercomputers; Developed one of the very first parallel Genetic algorithms for k-way Graph Partitioning.