

CURRICULUM VITAE

Heidi L. Morgan, Ph.D.

F.K.A. Heidi L. Alvarez

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www.ciara.fiu.edu

www.amlight.net

www.ampath.net

EDUCATION & TRAINING

- 2006 Ph.D. Erasmus University Rotterdam School of Management
Dissertation title: Distributed Collaborative Learning Communities Enabled by Information Communication Technology
- 1999 M.A. in English
Florida International University (FIU),
College of Arts and Sciences, English Department
Graduate Advisor: Professor Kenneth Johnson
- 1979 B.S. in Education
University of Miami

APPOINTMENTS

- 2016-present Research Scientist Associate: Center for Internet Augmented Research and Assessment (CIARA)
School: Florida International University, Division of Information Technology
Description: Provided cyberinfrastructure leadership in support of this center for education, research and development.
- 2016-present Senior Computer Scientist: Information Sciences Institute (ISI)
School: University of Southern California (USC)
Description: ISI is a world leader in research and development of advanced information processing, computer and communications technologies.
- 2005-2016 Director: Center for Internet Augmented Research and Assessment (CIARA)
School: Florida International University, Division of Information Technology
Description: Co-founded CIARA as a State of Florida Type II research center in 2003. CIARA fosters a domain-specific tailoring of Internet technologies to support faculty research, and in the process improve graduate education. CIARA assesses and measures FIU's effectiveness in the use of technology to augment the rate of discovery for domain researchers.
- 2003-2005 Associate Director: CIARA at Florida International University
- 2002-2003 Director: IT Research Madrid-Miami Center

School: Florida International University in collaboration with Miami-Dade County Commission and the Comunidad de Madrid
(<http://www.miamidade.gov/govaction/matter.asp?matter=030127&file=false&yearFolder=Y2003>)
Description: Provided cyberinfrastructure leadership in support of this center for education, research and development.

2000-2003 Assistant Director: Network Engineering and Telecommunications (NET)
School: Florida International University
Description: Project manager for the installation of Voice over IP telephony for the university. Developed the AMPATH International Exchange Point in Miami for Research and Education Networking in collaboration with J. Ibarra.

DISSERTATION

Dissertation title: Distributed Collaborative Learning Communities Enabled By Information Communication Technology

Abstract: *How and why can Information Communication Technology (ICT) contribute to enhancing learning in distributed Collaborative Learning Communities (CLCs)? Drawing from relevant theories concerned with phenomenon of ICT enabled distributed collaborative learning; this book identifies gaps in the current knowledge. Many questions can be asked about the role of technology in distributed CLCs. How technology is enabling collaborative learning in learning communities is an important one. What are the issues and problems in the context of technology enabled collaborative learning, is another. The articulation of CLC characteristics stem from the Communities of Practice and Communities and Technologies movements that have taken root in twenty-first century Information Society dialog. The theoretical lens provides a framework to study this phenomenon empirically in a case study setting. The research methodology explains the choice and justification for the single case study of the Fielding Graduate University. Fielding offers a unique example of both the phenomenon and context of technology enabled distributed graduate education. The study findings can begin to be generalized to CLCs with similar characteristics to the Fielding Graduate University. Because of the need for intense collaboration, distributed collaborative learning can be facilitated by the use of rich media. Where people use media rich technologies their distributed collaborative learning results seem to be better than their colleagues that did not use ICT. Therefore, media rich ICTs with collaborative features may improve the level of learning and performance in collaborative distributed learning environments.*

Committee Chair (Promotor): Prof.dr. K. Kumar/ Members: Prof.dr. F. Go, Prof.dr. Dan Sewell, Prof.dr. P.J. van Baalen

TEACHING EXPERIENCE

1995-2000 Adjunct Professor: Freshman Composition, Business and Technology writing, Multi-Media English
School: *Florida International University, Department of English*

Description: *Specialization in teaching in a computer lab where students were exposed to collaborative learning enabled by ICT.*

RESEARCH EXPERIENCE

1998-1999 Sr. Programmer Analyst, Academic and Research Computing
School: *Florida International University*
Description: *Policy and procedure development for the university IT organization. Led the development and maintenance of the web presence for the IT organization.*

RELEVANT WORK EXPERIENCE

1992-1996 Chief of Information Services: Department of Solid Waste Management
Location: Miami-Dade, FL
Description: Led the information technology support for a new recycling program in Miami-Dade County. Oversaw the departments routing system for garbage collection. Utilizes the county's Geographic Information System (GIS) for FEMA reporting after Hurricane Andrew.

FEDERAL GRANTS AWARDED (See Appendix A for Full Abstracts)

Active Grants:

2016-2017 Award# ACI- 1541402, \$400,000, **CC*DNI Engineer: ACI Engineer Lead for a Hybrid Campus Network** [Co-PI] The diversity in CI accessible to researchers at FIU has created an environment with the potential to stimulate collaborative research opportunities. Simultaneously, this diversity in CI has added new forms of complexity and challenges to the networks and applications, both on- and off-campus. The C-CIEL would guide researchers and the campus IT staff in leveraging CI resources to improve the environment and increase capacity towards discovery.

2015-2021 Sub-award under # AST- 1202910, \$17,158,000, **LSST Construction: Construction of the Large Synoptic Survey Telescope (LSST)** [Co-PI] FIU awarded for AMLIGHT to provide an Advanced International Network for the Large Synoptic Survey Telescope (LSST) through 2031 with AMLIGHT's long-term support for a high-speed network, linking LSST to the National Center for Super Computing Applications (NCSA) through a sub-award from the Association of Universities for Research in Astronomy (AURA).

2015-2020 Award# ACI- 1451018, \$5,000,000, IRNC: **Backbone: AmLight Express and Protect (ExP)**, [Co-PI] AmLight ExP will be a reliable, leading-edge infrastructure for research and education. Total production bandwidth provided by AmLight ExP between the U.S. and South America will grow to more than 680G over the next five years.

2015-2020 Award# ACI- 1451024, \$3,500,000, IRNC: **RXP: AtlanticWave-Software Defined Exchange: A Distributed Intercontinental Experimental Software Defined Exchange (SDX)** [Co-PI.] A distributed experimental SDX will provide

an environment for development and prototyping of functions and services essential towards advancing knowledge to support end-to-end services, capable of spanning multiple SDN domains.

- 2014-2016 Award# ACI- 1440728, \$300,000.00, **CC*IIE IAM: Secure Access for Everyone (SAFE)**, [Co-PI.] Secure Access for Everyone (SAFE) creates an Identity and Access Management (IAM) infrastructure that facilitates easy access to campus Cyberinfrastructure (CI) resources for local, state, regional and national researchers.
- 2014-2016 Award# CNS- 1443285, \$200,000.00, EAGER: **SwitchOn - Exploring and Strengthening US-Brazil Collaborations in Future Internet Research**, [Co-PI] This project funds the U.S. side of an exploration of potential collaborations between the U.S. and Brazil on Future Internet Architectures and the GENI project.
- Previous Grants:**
- 2010 – 2015 Award# ACI-0963053, \$7,744,790.00, **IRNC-ProNet: Americas Lightpaths: Increasing the Rate of Discovery and Enhancing Education across the Americas**, [Co-PI] **AmLight** enables research and education amongst the people of the Americas through the operation of production infrastructure for communication and collaboration between the US and Western Hemisphere science and engineering research and education communities.
- 2010 – 2015 Award# IIA-1129076, \$4,891,876.00, **PIRE: Training and Workshops in Data Intensive Computing Using The Open Science Data Cloud**, [Co-PI]. This PIRE project embraces cloud computing as a global issue and so taps the cloud computing, high performance networking, domain science, e-Science, education and outreach expertise of its many collaborators in Europe, Asia and South America.
- 2013 – 2014 Award# ACI-1357928, \$49,000.00, **Big Data, Big Networks: Big Opportunities for Collaboration between Mexico and the United States**, [Co-PI]. The Research and Education communities of the U.S. and Mexico have a long history of cross-border collaborations. Given the proximity and the breadth of research taking place at institutions in California and Mexico, the opportunity for enhancing network-dependent cross-border science research and education collaborations holds great promise. This grant funded a series of workshops at Mexico's Center for Scientific Research and Higher Education (CICESE) and the University of California San Diego (UCSD).
- 2012 – 2014 Award# ACI-1246185, \$500,000.00, **CC-NIE Network Infrastructure: FlowSurge: Supporting Science Data Flows Towards Discovery, Innovation and Education**, [Co-PI]. The FlowSurge project leverages cyberinfrastructure (CI) resources for Software Defined Networking (SDN) on the FIU campus network, at the AMPATH International Exchange Point, regional, national and international multi-organizations to enhance support for end-to-end Science flows from a researcher's laboratory. FlowSurge's major research contribution is a science network and Science DMZ at FIU tailored to support high-performance science applications and data-intensive flows.

- 2009 – 2013 Subaward under # CNS- 0714770, \$502,000.00, **PrimoGENI--Developing GENI Aggregates for Real-time Large-scale Network Simulation (through Raytheon/GENI Project Office)** [Co-PI] The major objective of GENI (Global Environment for Network Innovation), a virtual laboratory for exploring future internets at scale, is to create major new opportunities to understand, innovate and transform global networks and their interactions with society. Dynamic and adaptive, GENI opens up new areas of research at the frontiers of network science and engineering, and increases the opportunity for significant socio-economic impact.
- 2006 – 2009 Award# ACI- 0636031, \$791,273.00, **CI-TEAM Implementation Project: Global CyberBridges (GCB); A Model Global Collaboration Infrastructure for e-Science between US and International Partners** [PI] The Center for Internet Augmented Research and Assessment project 'Global CyberBridges' is a new model for the research workforce to develop competency in using CI. International partners included the Chinese Academy of Sciences Networking Center and several Brazilian universities.
- 2003 – 2009 Award# PHY-0312038, \$7,388,467, **CHEPREO: An Inter-Regional Grid Enabled Center for High Energy Physics Research & Educational Outreach at FIU**, [Co-PI and grant proposal coordinator] Florida International University (FIU), in collaboration with partners at Florida State University (FSU), the University of Florida (UF), and the California Institute of Technology (Caltech), in cooperation with the National Science Foundation, are creating and operating an interregional Grid-enabled Center for High-Energy Physics Research and Educational Outreach (CHEPREO) at FIU, encompassing an integrated program of research, network infrastructure development, and education and outreach at one of the largest minority schools in the US.
- 2005 – 2007 Award# ACI- 0537464, \$224,700.00, **CI-Team: CyberBridges** [PI]. The Center for Internet Augmented Research and Assessment pilot project 'CyberBridges' is a new model for the research workforce to develop competency in using CI.
- 2005 - 2010 Award# ACI- 0441095, \$5,402,255.00, **SCI/IRNC: WHREN (Western Hemisphere Research and Education Networks): Increasing the Rate of Discovery and Enhancing Education across the Americas**, [Co-PI]. WHREN addressed the existing and future needs for improved North American (especially U.S.)-South American connectivity. This proposal specifically focuses on the need for connectivity through new links, LILA (Links Interconnecting Latin America).
- 2005 - 2006 Award# IIA- 0418366, \$119,196.00, **PASI on Advanced Networking Technologies Leveraged for Physics and Astronomy; Mendoza, Argentina**, [Co-PI] The Pan-American Advanced Studies Institutes (PASI) award, jointly supported by the NSF and the Department of Energy (DOE), took place in Mendoza, Argentina in January 2005 on the topic of Advanced Networking Technologies leveraged for Physics and Astronomy.

- 2005 - 2007 Award# IIA- 0549456, \$40,000.00, **Americas Program Workshop: Cyberinfrastructure for International Biodiversity Research Collaboration** [Co-PI]. The workshop was held in Panama City, early in January 2006 and explored opportunities and breakthrough activities with the aim of promoting future collaborations in biodiversity informatics and research.
- 2005 - 2006 Award# ACI- 0231844, \$482,679.00, **STI: AMPATH Collaborative Research and Education Operational and Functional Support** [Co-PI]. This project in advanced networking infrastructure and an international exchange point for research and education is based in Miami, Florida at Florida International University (FIU). The project will connect at least 10 countries' National or Regional Research and Education Networks (NRENS), and will provide advanced networking connectivity to US e-Science applications and major instrumentation interests in Latin America and the Caribbean.
- 2002 - 2003 Award# CNS- 0215434, \$49,152.00, **AMPATH StarLight Rio Grid Workshop**, [PI]. This funding allowed Florida International University (FIU) to contribute a key technology component to the 2002 AMPATH StarLight Rio Grid Workshop in Brazil.
- 2002 - 2003 Award# ACI- 0305876, \$44,575.00, **AMPATH Workshop: Fostering Collaborations and Next Generation Infrastructure**, [Co-PI]. The main objective of the workshop is to create an environment for AMPATH participants, potential participants and those with a regional, hemispheric or international interest in the project to exchange ideas, form new and solidify existing collaborations and articulate specific Network Infrastructure needs.
- 2002 Award# CNS- 0220176, \$57,935.00, **First AMPATH International Conference: Valdivia, Chile**, [PI]. The conference continued the work of identifying the universities and research centers in the AMPATH service area who require, or would take advantage of, high-performance connectivity to research institutions in the U.S. and worldwide if it were available.
- 2001 Award# CNS- 0123388, \$53,679.00, **FIU AMPATH Workshop to Identify Areas of Scientific Collaboration between the US and the AMPATH Service Area**, [PI]. A workshop was conducted by Florida International University (FIU) to discuss the current and future needs and activities of researchers needing a high performance network for their research projects associated with activities and projects in South and Central America, Mexico and the Caribbean.

HONOR AWARDS AND ACHIEVEMENTS

- 2011 10 Years Service Award from Florida International University
- 2009 Operational Excellence Award Florida International University Division of IT
- 2003 Presidential Excellence Award from Florida International University
- 2001 Executive Development Program Recognition from Florida International University

PEER REVIEWED PUBLICATIONS AND POSTERS

- Chung, J., Donovan, S., Bezerra, J., Morgan, H., Ibarra, J., Clark, R., & Owen, H., "Novel Network Services for Supporting Big Data Science Research". Presented at Gateways 2017, University of Michigan, Ann Arbor, MI, October 23-25, 2017. <https://gateways2017.figshare.com/>, Paper
- Chung, J., Donovan, S., Bezerra, J., Morgan, H., Ibarra, J., Clark, R., & Owen, H., "Novel Network Services for Supporting Big Data Science Research". Presented at Gateways 2017, University of Michigan, Ann Arbor, MI, October 23-25, 2017. <https://gateways2017.figshare.com/>, Poster
- Bezerra, J., Arcanjo, V., Ibarra, J., Kantor, J., Lambert, R., Kollross, M., Astudillo, A., Sobhani, S., Jaque, S., Petravick, D., Morgan, H., Lopez, L., "International Networking in support of Extremely Large Astronomical Data-centric Operations". Presented at Astronomical Data Analysis Software and Systems (ADASS XXVII) conference, Santiago, Chile, October 22-26, 2017. <http://www.adass.org/>
- Bezerra, J., Ibarra, J., Schwarz, M., Freitas, H., Morgan, H., "Mitigating the Risks of Supporting Multiple Control Plans in a Production SDN Network: A Use Case", In Anais do SBRC/WPEIF 2017, Belem, PA, Brazil, (p.34-37)
- J. Chung, J. Cox, J. Ibarra, J. Bezerra, H. Morgan, R. Clark, and H. Owen, "AtlanticWave-SDX: An International SDX to Support Science Data Applications," in Software Defined Networking (SDN) for Scientific Networking Workshop, Nov. 2015, pp. 1-7.
- Nam Pho, Dino R. C. Magri, Fernando F. Redigolo, Byoung-Do Kim, Timothy Feeney, Heidi L. Morgan, Chirag J. Patel, Chris Botka, Tereza Cristina M. B. Carvalho: "Data Transfer in a Science DMZ using SDN with Applications for Precision Medicine in Cloud and High-performance Computing", SC 2015 - International Conference for High Performance Computing, Networking, Storage and Analysis, Austin, TX, 15-20 Nov, 2015
- Julio Ibarra, Jeronimo Bezerra, Heidi Morgan, Donald A. Cox, III, Michael Stanton, Iara Machado, and Eduardo Grizendi: "Benefits brought by the use of OpenFlow/SDN in the AmLight intercontinental research and education network", IM 2015 - 14th IFIP/IEEE Symposium on Integrated Network and Service Management, Ottawa, Canada, 11-15 May, 2015
- Pedro Bello-Maldonado, Ana Oprescu, Paola Grosso, Heidi Morgan and Indira Gutierrez: "OSDC BigDataBus: Towards an Unified Architecture for Scientific Data Aggregation", 2014 XSEDE14 Conference, Atlanta, GA, 13-18 July, 2014
- Heidi Morgan, Florencio Utreras, Colleen Wint Smith, Sandra Jaque, Raúl Rivera Rodriguez, Alejandro Lara, Sandra Jaque, Alejandro Lara "New Era in Latin American and Caribbean R&E Networking: Projects & Infrastructure Developments", 2014 Internet2 Global Summit, Denver, CO, 6-11 April, 2014
- Morgan, Heidi L., Cox Donald A., Ibarra, Julio E. "Openwave: Collaboration Between Industry and Government", Managing Critical Infrastructure in a Changing Natural and Socio-Economic Environment, 2014 ICPC Plenary Meeting, Dubai, 18-20 March, 2014

- H. Morgan, R. Grossman, P. Grosso, A. Barker and V. Chergarova, 'Open Science Data Cloud Automate Provisioning', TERENA Networking Conference (TNC), Maastricht, Netherlands, 2013.
- Robert L. Grossman, Matthew Greenway, Allison P. Heath, Ray Powell, Rafael D. Suarez, Walt Wells, Kevin P. White, Malcolm P. Atkinson, Iraklis A. Klampanos, Heidi L. Morgan, Christine Harvey, Joe Mambretti: The Design of a Community Science Cloud: The Open Science Data Cloud Perspective. SC Companion 2012: 1051-1057
- Chi Zhang, Bin Liu, Xun Su, Heidi L. Alvarez, Julio Ibarra "Integrating heterogeneous network monitoring data", Telecommunication Systems 2008,71-84, Vol. 37 No. 1-3 Pg. 71-84
- Xing Hang, David Villegas Castillo, S. Masoud Sadjadi, and Heidi Alvarez. "Formative assessment of the effectiveness of collaboration in GCB," Proceedings of the International Conference on Information Society (i-Society 2007), Merrillville, Indiana, USA, October 2007.
- C. Zhang, B. Liu, X. Su, H. Alvarez and J. Ibarra, "An Experimental Approach to Integrating NetFlow Flow-level Records and NLANR Packet-level Traces", Proceedings of the 2nd International Conference on Internet Monitoring and Protection (IEEE Computer Society Press), Silicon Valley, July 2007.
- H. Alvarez, J. Ibarra, K. Kumar, C. Zhang, et. al., "CyberBridges: Integrating Advanced Grid Infrastructure with Science and Engineering", Proceedings of the TeraGrid Conference, Madison, Wisconsin, June 2007.
- H. Alvarez, D. Chatfield, D. Cox, E. Crumpler, C. D'Cunha, R. Gutierrez, J. Ibarra, E. Johnson, K. Kumar, T. Milledge, G. Narasimhan, M. Sadjadi, and C. Zhang, "Cyberbridges: A Model Collaboration Infrastructure for e-Science", Proceedings of the the 7th IEEE International Symposium on Cluster Computing and the Grid (CCGrid), Rio de Janeiro, Brazil, May 2007
- Alvarez, H.L. (2006, June 2). *Distributed Collaborative Learning Communities Enabled by Information Communication Technology*. ERIM Ph.D. Series Research in Management. Erasmus Research Institute of Management (ERIM). Retrieved from <http://hdl.handle.net/1765/7830>
- Heidi Lee Alvarez, "Regional aspects of Miami crime fiction" (January 1, 1999). ProQuest ETD Collection for FIU. Paper AAI1426018. <http://digitalcommons.fiu.edu/dissertations/AAI1426018>

STUDENT MENTORING:

- 2015 Cruz, Jose; Degree seeking BS Florida International University
 Feldbeine, Zeev; Degree seeking BS Florida International University
 NSF Research Experience for Undergrads (REU) supplement to IRNC Backbone:
 AmLight Exp project with a concentration in Software Defined Networking.

- 2015 Pho, Nam; Ph.D. Harvard Medical School
Data Transfer in a Science DMZ using SDN
- 2014 Buntain, Cody L; Ph.D. University of Maryland
Natoli, Christopher; MS Univesity of Chicago - Comparing Algorithms for Detecting
Abrupt Change Points in Data
- 2014 Zhao, Yuan; Ph.D. University of California San Diego High-Throughput Visualization
- 2014 Eisenberg, Joshua; Ph.D Florida International University - Secure Information Flows
- 2014 Abyarjoo, Fatemeh; Ph.D. Florida International University - Wearable Cloud-based 3D
Human Motion Detection Device
- 2014 Zhang, Weiwei; Ph.D. University of Nebraska – Open Multiplatform Clouds using OSDC-
ENVRI-GBIF Interoperation
- 2014 Butler, Nathaniel; MS Florida International University, 2015 - Data Transfer Applications
Between OSDC and USP Science DMZ
- 2014 Moreno, Alexander; MS Georgia Institute of Technology - a Python framework for data-
intensive scientific computing and speeding up large-scale financial computations.
- 2013 Zebrowski, Ashley; Ph.D Rutgers - Extending Rock Physics to the cloud by managing
complex infrastructure requirements when computing in the cloud
- 2013 Eisenberg, Joshua; Ph.D Florida International University - RockPy- A Python Library for
Rock Physics Joshua Eisenberg (poster)
- 2013 Lewis, Michael; Ph.D. University of Illinois Chicago - Using Large Scale Clustering To
Detect Potential Fire Regions Michael Lewis, 2013 (poster)
- 2013 Korpela, Joseph, MS University of California Los Angeles - Distributed Processing of
Workflow Applications Using the Storm Framework Joseph Korpela, 2013 (poster)
- 2013 Crimi, Kevin; Ph.D. University of Southern California - Visualizing high dimensional music
collections using t-SNE, Kevin Crimi, 2013 (poster)
- 2013 Patterson, Maria; Ph.D. New Mexico State University- Performance Assessment of Large
Astronomical Databases, Maria Patterson, 2013 (poster)
- 2013 Maldonado, Pedro D. Bello; MS Florida International University - Unified Architecture for
Scientific Data Aggregation Pedro D Maldonado, 2013 (poster)
- 2013 Griffis, Eric A.; MS University of California Los Angeles – Workflows in Cloud Computing
and Data Storage.
- 2012 Harvey, Christine; MS Richard Stockton College of New Jersey - Portable, Reliable and
Automatic Streaming Data Transfer with Globus Online Christine Harvey, 2012 (poster)
- 2011 Kuryla, Christine L., BS Florida International University - A heterogeneous system based
on GPU and multi-core CPU for real-time fluid and rigid body simulation (paper).
- 2011 Chegarova, Vasilka; MS Florida International University - Open Science Data Cloud
Automate Provisioning' TERENA Networking Conference (TNC), Maastricht,
Netherlands, 2013 (presentation)

PRESENTATIONS AND POSTER SESSIONS AT TECHNICAL AND SCIENTIFIC MEETINGS

- H. Morgan 'AmLight SDN Testbeds; The Future of Collaboration' APAN 39th Conference
Fukuoka, Japan 2015.
- H. Morgan, 'PICO Research Interests' Second SwitchOn Workshop, Sao Paulo, Brazil, 2015.
- J. Ibarra, H. Morgan, J. Bezerra ' Use of SDN in the AmLight intercontinental research and
education network' TERENA Networking Conference (TNC), Porto, Portugal 2015.
- H. Morgan, 'AmLight and LSST', Data Mobility & Management for International Cosmology, San

Diego, CA, 2015.

- H. Morgan, J. Ibarra and J. Bezerra, 'Network Testbeds at AmLight: Eight Months Later', Internet2 Global Summit, Washington, DC, 2015.
- H. Morgan, 'AmLight SDN Testbeds: The Future of Collaboration', OSDC-PIRE Data Driven Science Workshop, Amsterdam, Netherlands, 2015.
- H. Morgan, 'PICO Research Interests' First SwitchOn Workshop, Miami, FL, 2015.
- H. Morgan, 'Meeting with NSF OSDC-PIRE External Evaluator', Los Angeles, CA, 2014.
- H. Morgan, 'Broader Engagement Programs panel on Interviewing', SC 14, New Orleans, LA, 2014.
- H. Morgan and J. Ibarra, 'RNP's Infrastructure and new services for collaboration support', CineGrid International Workshop 2014, Sao Paulo, Brazil, 2014.
- C. Buntain, C. Natoli, M. Zivkovic, H. Morgan 'Comparing Algorithms for Detecting Abrupt Change Points in Data', SC 14, New Orleans, LA, 2014.
- Y. Zhao, J. Haga, H. Morgan 'Hydra: An HTML5-Based Application for High-Throughput Visualization of Ligand Docking', SC 14, New Orleans, LA, 2014.
- H. Morgan, 'Work on the AURA/LSST and the OSDC-PIRE grant collaborations with faculty', Fisk University, Vanderbilt University, Nashville, TN, 2014.
- H. Morgan and J. Ibarra, 'Internet2 US-China Collaboration Initiative', CANS 2014, New York, NY, 2014.
- H. Morgan, 'Collaborate on Future Cloud Computing graduate education and research projects', University of Paris Descartes, Paris, France, 2014.
- H. Morgan, J. Ibarra, D. Cox and L. Fox, 'NSF Contributions to Cross-border Collaborations: AmLight Project, Big Data Big Networks Workshop', BDBN Workshop, La Jolla, CA, 2014.
- H. Morgan, 'OSDC PIRE Outreach Activities', Georgia Institute of Technology, Atlanta, GA, 2014.
- H. Morgan, 'US-Mexico Collaborations', CENIC 2014 Annual Conference, Rohnert Park, CA, 2014.
- H. Morgan, 'New Era in Latin American and Caribbean R&E Networking: Projects & Infrastructure Developments', 2014 Internet2 Global Summit, Denver, CO, 2014.
- P. Maldonado, H. Morgan 'Uva Data Service: Towards an Unified Architecture for Scientific Data Aggregation' XSEDE14 Conference, Atlanta, GA 2013.
- R. Grossman, H. Morgan, P. Grosso, A. Barker, V. Chergarova, 'Open Science Data Cloud Automate Provisioning' TERENA Networking Conference (TNC), Maastricht, Netherlands, 2013.
- H. Morgan, 'Collaborative and distributed e-Science', OSDC PIRE Annual Workshop, University of Edinburgh, UK, 2013.

- H. Morgan and J. Ibarra, 'International exchange point in Miami operated by Florida International University', GLIF and AIST Tokyo Meeting, Singapore 2013.
- H. Morgan, J. Ibarra and L. Fox, 'Big Data, Big Networks Workshop Center for Scientific Research and Higher Education (CICESE)', BDBN Workshop, Ensenada, Mexico, 2013.
- H. Morgan and R. Grossman 'Collaborative Opportunities with the Open Science Data Cloud', Super Computing 2013, Denver, CO, 2013.
- C. Harvey, H. Alvarez 'PRAS-DT: Portable, Reliable and Automatic Streaming Data Transfer with Globus Online' Super Computing 2013, Salt Lake City, UT, 2012.
- H. Alvarez, J. Ibarra and D. Cox, 'South American Astronomy Coordination Committee Meeting', SAACC Meeting, 2012.
- H. Alvarez and J. Ibarra, 'New and ongoing work and provide a venue for making connections and forming new collaborations', I2 Member Meeting, 2012.
- H. Alvarez, 'Open Science Data Cloud project', 12th Annual GLIF Workshop, Chicago, US, 2012.
- H. Alvarez and R. Grossman, 'Birds-of-a-Feather Sessions (BOFs): Collaborative Opportunities with the Open Science Data Cloud', Super Computing 2012, Salt Lake City, UT, 2012.
- H. Alvarez, 'AMPATH to launch support for Dynamic Hybrid Networking', 11th Annual Global LambdaGrid Workshop, Rio de Janeiro, Brazil, 2011.
- H. Alvarez and J. Ibarra, 'Creating the Future: Collaborations and Connections', Fall 2011 Internet2 Member Meeting, Raleigh, NC, 2011.
- H. Alvarez and R. Grossman, 'OSDC OpenMP in the Petascale Era', Super Computing 2011, Seattle, WA, 2011.
- H. Alvarez and J. Ibarra, 'International Research Network Connections: Americas Lightpaths', GLIF 10th Annual Global LambdaGrid Workshop, Geneva, Switzerland, 2010.
- H. Alvarez, 'NSF CI-PIRE Review at the LA-Grid Conference', LA Grid Research Summit, Miami, FL, 2010.
- H. Alvarez, 'Emerging Networks Caribbean Special Interest Group', Fall Internet2 Members Meeting, Atlanta, GA, 2010.
- H. Alvarez and R. Grossman, 'Supercomputing 2010 NSF OSDC-PIRE Meeting', Super Computing 2010, New Orleans, LA, 2010.
- H. Alvarez, 'NSF OSDC-PIRE Workshop', Center for Scientific Computing, Sao Paulo State University (NCC/UNESP), Brazil, 2010.
- H. Alvarez, 'NSF OSDC-PIRE Workshop', Computer Science Institute, Universidade Federal Fluminense, Rio de Janeiro, Brazil, 2010.
- H. Alvarez, 'Introduction to Global Cyberbridges and overview of Global Cyberbridges projects', Calit2 Workshop UCSD, San Diego, CA, 2009.
- H. Alvarez and M. Sadjadi, 'Global CyberBridges: A Model Global Collaboration Infrastructure

for E-Science between the United States and International Partners', Educause Learning Initiative Annual Meeting, Orlando, FL, 2009.

- H. Alvarez, J. Delgado and J. Zhao, 'Global Cyberbridges Hurricane Mitigation', Chinese-American Network Symposium, Indianapolis, IN, 2009.
- H. Alvarez, 'Caribbean Research and Education Networking', Internet2 Members Meeting, New Orleans, LA, 2008.
- H. Alvarez, 'Internet2 evolution & AMPATH " the high performance international exchange point in Miami', Fourth Caribbean Internet Governance Forum, Curacao, Netherlands Antilles, 2008.
- H. Alvarez ' Biodiversity and Ecological Informatics Research' Workshop on Cyberinfrastructure for International Biodiversity Research Collaboration, City of Knowledge, Panama, 2006.
- J. Ibarra, H. Alvarez, C. Cox, J. Silvester ' WHREN-LILA project: US - Latin America Connectivity ' NSF IRNC Program Kickoff, Washington, DC, 2005
- H. Alvarez, J. Ibarra, P. Avery, X. Su ' CHEPREO: Description of Cyberinfrastructure ' Summer Physics Modeling Workshops, Florida International University, Miami, FL, 2004.
- H. Alvarez, J. Ibarra ' An Inter-Regional Grid-Enabled Center for High-Energy Physics Research Education and Outreach (CHEPREO) ' Digital Divide and HEPGRID Workshop UERJ-Rio de Janeiro, Brazil, 2004.
- H. Alvarez, J. Ibarra 'CHEPREO: Cyberinfrastructure Update' QuarkNet Workshop, Florida International University, Miami, FL 2004.
- H. Alvarez, J. Ibarra 'Experiences with the Digital Divide in Latin America; 2003 Round Table on Developing Countries Access to Scientific Knowledge' The Abdus Salam ICTP, Trieste, Italy, 2003.
- H. Alvarez, J. Ibarra 'AMPATH Scientific Applications Collaboration Update' First Int'l AMPATH Conference, Valdivia, Chile, 2002.
- H. Alvarez, J. Ibarra 'AMPATH; Network of the Americas' LISHEP Grid Workshop, UERJ, Rio de Janeiro, Brazil, Feb 7-8, 2002.
- H. Alvarez, J. Ibarra 'AMPATH Scientific Applications Overview' AMPATH Workshop, Miami, Florida, 2001.
- H. Alvarez, J. Ibarra 'AmericasPATH' STAR TAP Annual Meeting, INET 2001, Stockholm, Sweden, 2001.
- H. Alvarez, J. Ibarra 'AMPATH; International Connectivity Issues' Internet2 Fall Members Meeting, Atlanta, Georgia, 2001.

PROFESSIONAL ASSOCIATIONS

Chairperson: Internet2 Global Team for Latin America and the Caribbean
Program Committee: Chinese American Network Symposium (CANS) program committee
Member: Latin American University Research and Education Networks Foundation Board

Member: FIU Academy for the Art of Teaching Grant Award; Innovations in Process Analysis
Chairperson: Miami-Dade County Information Systems Policy Committee

REFERENCES

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