SOUTHBIGDATAHUB

Welcome to the South Big Data Innovation Hub's 2017 All-Hands Meeting!

#SouthData17

June 9, 2017
Microsoft, Chevy Chase Pavilion
5404 Wisconsin Ave, #700, Chevy Chase, MD 20815

This packet contains information about the South Big Data Innovation Hub's 2017 All-Hands Meeting, including the agenda and information on the speakers; local resources in the Chevy Chase/Washington DC area; and the NSF Spoke Solicitation. We look forward to discussing the work that the South Hub has done and will continue to do in the future.

ALL-HANDS MEETING

Agenda

Thursday, June 8, 2017

9:00-5:00 PM | Microsoft Azure Training at Microsoft, Chevy Chase Pavilion, 5404 Wisconsin Ave, #700 Chevy Chase, MD | Free to SBDH Members

6:00-8:00 PM | No-Host Happy Hour, Clyde's of Chevy Chase, 5441 Wisconsin Ave, Chevy Chase, MD

Friday, June 9, 2017 at Microsoft, Chevy Chase Pavilion, 5404 Wisconsin Ave, #700 Chevy Chase, MD

8:00 AM | Registration & Coffee

8:30 AM | Welcome & Opening Remarks

- Stan Ahalt, Director, RENCI, Professor of Computer Science, University of North Carolina at Chapel Hill
- Srinivas Aluru, Professor, School of Computational Science and Engineering, Georgia Institute of Technology

8:45 AM | State of the Hub

- Renata Rawlings-Goss, co-Executive Director, South Big Data Innovation Hub, Georgia Tech
- Lea Shanley, co-Executive Director, South Big Data Innovation Hub, RENCI, UNC-Chapel Hill

9:10 AM | Presentation by the National Science Foundation

- Fen Zhao, Program Lead on the Big Data Hubs and Spokes Program, NSF
- Chaitan Baru, Senior Advisor for Data Science, CISE Directorate, NSF

9:35 AM | South Hub Spoke & Planning Project Lightning Talks

- *Large Scale Medical Informatics for Patient Care Coordination and Engagement:* Indranil Bardhan, Professor, Naveen Jindal School of Management, The University of Texas at Dallas
- *Smart Grids Big Data:* Dilma Da Silva, Department Head and Professor, Department of Computer Science and Engineering, Texas A&M University
- *Using Big Data for Environmental Sustainability*: Jennifer Hammock, Marine Theme Coordinator, Encyclopedia of Life, Smithsonian Institute
- *Rare Disease Observatory*: Rada Y. Chirkova, Associate Professor, Department of Computer Science, North Carolina State University

10:35 AM | Coffee Break

10:55 AM | Data Science Collaborations in the Cloud

- Vani Mandava, Director, Data Science Outreach, Microsoft Research
- Adam Prosise, Research Analyst, Center for Economic Research in Tennessee

11:15 AM | Fireside Chat: Perspectives on Data Science and Collaborations

- Sokwoo Rhee, Associate Director of Cyber-Physical Systems Program, National Institute of Standards & Technology
- Leonard Fishman, Director of Business Development, data.world
- Daniel Morgan, Chief Data Officer, US Department of Transportation
- Anthony Burn, Director, Community Engagement, Radiant
- Michelle Schwalbe, Director of the Board on Mathematical Sciences and their Applications, The National Academies of Sciences, Engineering, and Medicine (Moderator)

12:30 PM | Instructions for the Afternoon

12:35 PM | Lunch

2:00 PM | Breakout Sessions

4:00 PM | Breakout Presentations & Next Steps

4:40 PM | Closing Remarks

5:05 PM | Reception

6:30 PM | Adjourn

Additional Information

Microsoft Azure Training, Thursday, June 8

If you have registered for the Microsoft Azure Training at the Chevy Chase Pavilion, registration opens 9:00AM and class begins at 9:30 AM. *Don't forget to bring your own Windows, Mac or Linux laptop computer with you*, as the hands-on tutorials will be done on your own machine. Breakfast, lunch and snacks will be served at the event. Each participant will receive a $500 Azure pass for use during the class and valid for one month.

Apply for an Azure for Research award, which provides up to 12 months' access to significant cloud computing resources for your project – Data Science cloud awards Deadline for application is Aug 15th 2017.

South Hub All-Hands Meeting, June 9

The morning talks and panels for the All-Hands meeting (8:30am to 12:30pm EDT) will be in the 5th floor Auditorium. If you are unable to make the meeting, you can also watch via WebEx (https://goo.gl/vJvHlq). Event Number: 647 177 383, Event Password: southhub, Dial-In Number: +1-415-655-0003

The afternoon breakout sessions will split into classrooms based on spoke areas of interest. Instructions on the format of these sessions will be given before lunch.

Presenters

Stan Ahalt

Director, RENCI, Professor of Computer Science, University of North Carolina at Chapel Hill
Welcome & Opening Remarks

Stan Ahalt is Director of the Renaissance Computing Institute (RENCI), Professor of Computer Science at the University of North Carolina at Chapel Hill, and one of the co-principal investigators for the South Big Data Innovation Hub. He is Deputy Director of the Biomedical Informatics Core for the North Carolina Translational and Clinical Sciences Institute (NC TraCS) and the PI of the UNC-CH NIH/NCATS Biomedical Data Translator Technical Feasibility Assessment and Architecture Design award. As Director of RENCI, Stan was instrumental in launching two major data science initiatives: The National Consortium for Data Science (NCDS), a public-private partnership to address big data challenges and opportunities in research and business; and the iRODS Consortium, an initiative to develop a branch of the popular integrated Rule-Oriented Data System as enterprise-quality software.

Srinivas Aluru

Co-Executive Director, Institute for Data Engineering and Science (IDEaS), Georgia Institute of Technology

Srinivas Aluru is a professor in the College of Computing and co-Executive Director of the Institute for Data Engineering and Science (IDEaS) at the Georgia Institute of Technology. He is a Principal Investigator for the NSF South Big Data Regional Innovation Hub. Aluru conducts research in high performance computing, large-scale data analysis, bioinformatics and systems biology, combinatorial scientific computing, and applied algorithms. He has contributed to NITRD and OSTP led white house workshops, and NSF and DOE led efforts to create and nurture big data research. He is a recipient of the NSF Career award, IBM faculty award, John V. Atanasoff Discovery Award, Swarnajayanti Fellowship from the Government of India, and the Outstanding Senior Faculty Research award and the Dean's award for faculty excellence at Georgia Tech. He is a Fellow of the American Association for the Advancement of Science (AAAS) and the Institute of Electrical and Electronics Engineers (IEEE), and is a recipient of the IEEE Computer Society meritorious service award.

Renata Rawlings-Goss

co-Executive Director, South Big Data Innovation Hub, Georgia Tech
State of the Hub

Renata Rawlings-Goss is co-Executive Director of the South Big Data Innovation Hub at Georgia Tech. Dr. Renata Rawlings-Goss worked with the White House Office of Science and Technology Policy as a AAAS science policy fellow at the National Science Foundation (NSF). She worked on Big Data policies and priority goals with the NITRD inter-agency Big Data Senior Steering group and participated in writing the National Big Data Strategic Plan with partners from (NSF, NIH, DARPA, DOE, NSA, NIST, NOOA, NASA, USGS, NRO, DHS, DOD, EPA, HHS, AHRQ, NARA etc). Additionally, Renata participated in the implementation of NSF priority goals for increased activity and workforce in data science. Dr. Rawlings-Goss is a biophysicist by training who completed her doctorate at the University of Michigan-Ann Arbor.

Lea Shanley

co-Executive Director, South Big Data Innovation Hub, UNC-Chapel Hill
State of the Hub

Dr. Lea Shanley is co-Executive Director of the South Big Data Innovation Hub at the UNC-Chapel Hill. She worked with White House OSTP and NASA HQ as a Presidential Innovation Fellow (PIF), designing and guiding open innovation research for planetary and Earth science. She also founded and co-led the Federal Crowdsourcing and Citizen Science Community of Practice, mobilizing 60+ federal agencies to build tools for CitizenScience.gov, and shaping the White House Memorandum on Crowdsourcing and Citizen Science and Sec. 402 of the American Innovation Competitiveness Act. This initiative is a finalist for the Harvard Kennedy School Ash Innovations in Government Award. Shanley also led research in social media, crowdsourcing, and social computing as director of the Wilson Center's Commons Lab, served as an American Association for the Advancement of Science Congressional Science Fellow, and advanced GIScience for disaster, coastal, and resource management at UW-Madison.

Fen Zhao
Program Lead on the Big Data Hubs and Spokes Program, NSF
Presentations by the National Science Foundation

Fen Zhao is the Program Coordinator for the Secure and Trustworthy Cyberspace Program and the Program Lead on the Big Data Hubs and Spokes Program. At NSF Dr. Zhao focuses on building public - private partnerships and coordinating activities with other agencies and institutions. Prior to joining CISE OAD, Dr. Zhao was a AAAS Fellow at the White House Office of Science and Technology Policy working on national security S&T issues. Before her work in the public sector, Dr. Zhao was an associate with McKinsey and Company's Risk Management Practice, serving public sector clients in the mortgage and debt markets. Fen received her B.S. from the Massachusetts Institute of Technology and a Ph.D. in Applied Physics from Stanford University.

Chaitan Baru
Senior Advisor for Data Science, CISE Directorate, NSF

Dr. Baru is Senior Advisor for Data Science in the Computer and Information Science and Engineering Directorate at the US National Science Foundation. He co-chairs the NSF working group on Harnessing the Data Revolution Big Idea; serves as advisor to the NSF Big Data Regional Innovation Hubs and Spokes program (BD Hubs/Spokes); manages the cross-Foundation NSF BIGDATA program; and is a member of the NSF Transdisciplinary Research in Principles of Data Science (TRIPODS) program. He also co-chairs the Big Data Inter-agency Working Group of the Networking and IT R&D program (NITRD) of the White House Office of Science and Technology Policy. He is one of the primary co-authors of the Federal Big Data R&D Strategic Plan, released May 2016. He is on assignment at NSF from the San Diego Supercomputer Center, University of California San Diego, where he is Associate Director for Data Initiatives and directs the Center for Large-scale Data Systems Research (clds.sdsc.edu) and the Advanced Cyberinfrastructure Development Group (acid.sdsc.edu).

Indranil Bardhan
Professor, Naveen Jindal School of Management, University of Texas at Dallas
South Hub Spoke & Planning Project Lighting Talks

Indranil Bardhan is Professor and Area Coordinator of Information Systems programs in the Naveen Jindal School of Management at the University of Texas at Dallas. Dr. Bardhan's current research focuses on healthcare analytics, and involves close collaboration with the University of Texas Southwestern Medical Center in Dallas. He has received external funding from the National Science Foundation and the UT system and the University of Texas Health System. He teaches in the MBA, Executive MBA, and MS programs at UT Dallas. He has served as Associate and Senior Editor at Information Systems Research and Production & Operations Management, respectively, and currently serves as Senior Editor at MIS Quarterly, and has served as conference and track chair at several major conferences. He holds a Ph.D. in Management Science and Information Systems from the McCombs School of Business at the University of Texas at Austin.

Dilma Da Silva
Department Head and Professor, Department of Computer Science and Engineering, Texas A&M University
South Hub Spoke & Planning Project Lighting Talks

Dilma Da Silva is a Systems Software researcher. Her primary research interests are cloud computing, operating systems, and large-scale distributed computing. She joined the Department of Computer Science and Engineering at Texas A&M University as its department head in 2014, after 14 years in industry research. Dr. Da Silva is an ACM Distinguished Scientist and holds a Ford Motor Design Professorship. She received her B.Sc. and MSc. in Computer Science from the University of São Paolo and her Ph.D. in Computer Science from the Georgia Institute of Technology.

Jennifer Hammock
Marine Theme Coordinator, Encyclopedia of Life, Smithsonian Institute
South Hub Spoke & Planning Project Lighting Talks

Jennifer Hammock is a biodiversity data wrangler for the Encyclopedia of Life at the Smithsonian. She is a recovering chemist and marine biologist and is interested in the flow of scientific data and meaning across space and time and among humans. She received her B.Sc. in Chemistry from the Massachusetts Institute of Technology and her Ph.D. in Biological Oceanography from the Woods Hole Oceanographic Institution.

Rada Chirkova
Associate Professor, Department of Computer Science, North Carolina State University
South Hub Spoke & Planning Project Lighting Talks

Rada Chirkova is Associate Professor of Computer Science at North Carolina State University. She has an M.Sc. and a Ph.D., both in Computer Science, from Stanford University. At NCSU, Dr. Chirkova is Director of the NCSU CSC Laboratory for the Science of Technologies for End-to-End Enablement of Data (STEED) and Director of the NCSU site of the NSF I/UCRC Center for Hybrid Multicore Productivity Research (CHMPR). Dr. Chirkova's research interests span information and knowledge management, algorithms and theory of computation, and data sciences and analytics, with applications including data wrangling, cyber security, and healthcare information technology.

Vani Mandava
Director, Data Science Outreach, Microsoft Research
Data Science Collaborations in the Cloud

Vani Mandava is a Principal Program Manager with Microsoft Research at Redmond with over a decade of experience designing and shipping software projects and features that are in use by millions of users across the world. Her role in the Microsoft Research Outreach team as Director of the Data Science for Research effort, is to enable academic researchers and institutions develop technologies that fuel data-intensive scientific research using advanced techniques in data management, data mining, especially leveraging Microsoft Cloud platform through the Azure for Research program.

Adam Prosise
Research Analyst, Center for Economic Research in Tennessee
Data Science Collaborations in the Cloud

Adam Prosise is a research analyst for the Center for Economic Research in Tennessee (CERT). CERT is a team of research professionals within the Tennessee Department of Economic and Community Development that performs key research to support informed decisions and strategic competitiveness in economic and community development. In addition to research created for the department's business recruitment and community development efforts, CERT offers to the public original, themed analysis on trends that impact Tennessee's economy. Adam's role in CERT includes competitive analysis, business intelligence, and spearheading the department's incorporation of machine learning into its operations. Before joining CERT, Adam worked as a business and technical services analyst at Eastman Chemical Company. Adam is an alumnus of the University of Tennessee-Knoxville, where he earned his degree studying quantitative economics, business analytics and classical civilizations.

Anthony Burn
Director, Community Engagement, Radiant
Fireside Chat: Perspectives on Data Science and Collaborations

Anthony Burn is passionate about harnessing the full power of GIS enabled data across multiple platforms, to transform individual lives and whole societies for the better. Anthony recently served as a senior consultant for two technical agencies of the United Nations, with a focus on the adoption of emerging technologies into the United Nations Operational Programs. Anthony has also worked with multinational organizations and commercial companies to deploy emerging technologies for the National Laboratory on the International Space Station (ISS), with an Earth Observation focus. Previously, Anthony was based in the United Kingdom, helping UK satellite companies develop commercial routes to global markets, as Head of the ADS Group Space Division.

Len Fishman
Director of Business Development, data.world
Fireside Chat: Perspectives on Data Science and Collaborations

Len oversees business development and partnerships at Austin-based B-Corp, data.world. Before joining data.world, he was CEO and co-founder of two ventures. The first, pledge4good, was a social fundraising platform that he founded while completing his MBA and that was acquired in 2012. More recently, he founded and ran for three and a half years a big data company serving investment funds called Uniqueio. Len earned an MBA from the Wharton School at the University of Pennsylvania and an undergraduate degree in Economics from Duke University.

Daniel Morgan
Chief Data Officer, US Department of Transportation
Fireside Chat: Perspectives on Data Science and Collaborations

Daniel Morgan is the first Chief Data Officer of the United States Department of Transportation. As the CDO, he has overall responsibility for the Departmental data program and data compliance across the Department. He is responsible for establishing a clear vision of the data managed in DOT and the application of DOT data for decision-making. He serves as data strategist and adviser, steward for improving data quality, liaison for data sharing and developer of new data products. Prior to assuming this role, Mr. Morgan spent 15 years as a management consultant, providing services to public and private sector clients in a variety of areas, including: open government, information technology governance, capital planning and investment control, enterprise architecture, and human capital planning. Mr. Morgan holds a Bachelor's Degree in Mechanical Engineering from the University of Illinois at Urbana-Champaign.

Sokwoo Rhee
Associate Director of Cyber-Physical Systems Program, National Institute of Standards & Technology
Fireside Chat: Perspectives on Data Science and Collaborations

Sokwoo Rhee is Associate Director of Cyber-Physical Systems Program at the National Institute of Standards and Technology (NIST). He is currently leading the Global City Teams Challenge (GCTC) which aims to create a replicable and scalable model for collaborative incubation and deployment of Internet of Things (IoT) and Cyber-Physical Systems (CPS) solutions to improve the quality of life in smart cities around the world. He previously served as a Presidential Innovation Fellow on CPS, a program by the White House Office of Science and Technology Policy. During his fellowship, he co-led the SmartAmerica Challenge, which brought together IoT technologies and CPS across the nation to demonstrate how they can provide concrete examples of the socio-economic benefits. He received his B.S. in Engineering from Seoul National University and his M.S. and Ph.D. in Engineering from the Massachusetts Institute of Technology.

Michelle Schwalbe

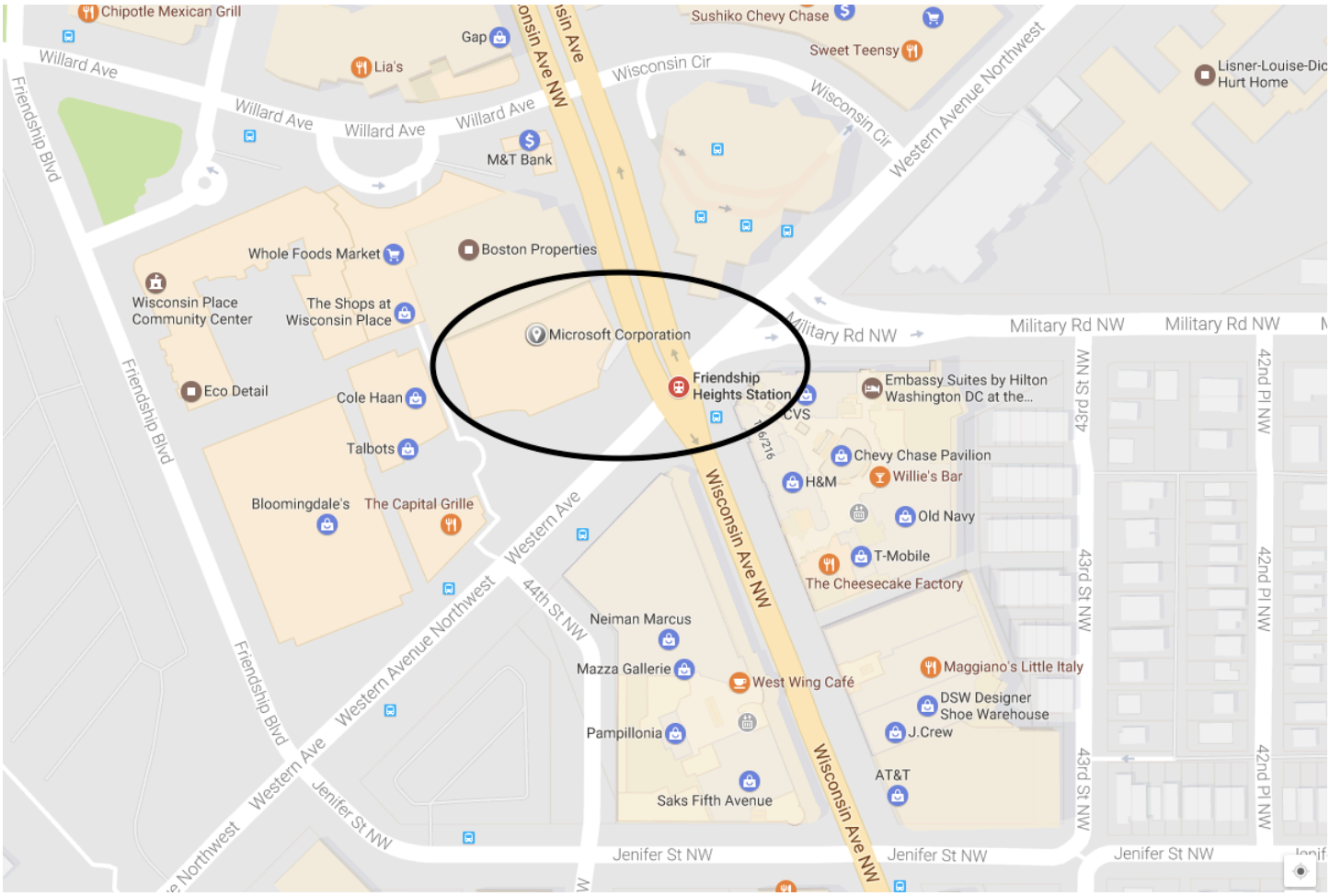
Director, Board on Mathematical Sciences and Analytics, The National Academies of Sciences, Engineering, and Medicine

Fireside Chat: Perspectives on Data Science and Collaborations (moderator)

Michelle Schwalbe is the Director of the Board on Mathematical Sciences and Analytics (BMSA) and the Committee on Theoretical and Applied Statistics (CATS) at the National Academies of Sciences, Engineering, and Medicine. She joined the National Academies as a Christine Mirzayan Science and Technology Policy Fellow working in BMSA and then as an Associate Review Officer with the Report Review Committee (RRC). She has led and participated in a wide range of studies and workshops within the BMSA and CATS portfolios relating to big data, reproducibility of scientific results, the future of mathematics research, data science education, and other topics. Michelle has a Ph.D. in Mechanical Engineering from Northwestern University, an M.S. in Engineering Science and Applied Mathematics from Northwestern, and a B.S. in Applied Mathematics from UCLA.

Information about Chevy Chase

The Microsoft offices are located at the
Chevy Chase Pavilion, 5404 Wisconsin Ave, #700 Chevy Chase, MD.
The building is at the Friendship Heights Metro Stop.



Registration for the event will be in the lobby of the Microsoft building.

The morning sessions of the All-Hands Meeting will take place in the 5th floor auditorium.

Area Hotels

- Embassy Suites by Hilton Washington DC Chevy Chase Pavilion, 4300 Military Road NW, Washington, D.C. 20015
- Courtyard Chevy Chase, 5520 Wisconsin Ave, Chevy Chase, MD 20815
- Hilton Garden Inn Washington DC/Bethesda, 7301 Waverly Street, Bethesda, MD 20814
- Hyatt Regency Bethesda, 7400 Wisconsin Ave), Bethesda, MD 20814
- DoubleTree by Hilton Hotel Bethesda - Washington DC, 8120 Wisconsin Ave., Bethesda, MD 20814

Area Restaurants

Friendship Heights Metro

- Clyde's of Chevy Chase, 441 Wisconsin Ave, Chevy Chase, MD 20815: *Long-running local chain serving classic American dishes*
- Lia's, 435 Willard Ave, Chevy Chase, MD 20815: *Offering a big variety of contemporary American-Italian fare*
- Range, 5335 Wisconsin Ave NW #201, Washington, DC 20015: *Airy eatery & bar featuring open kitchens & a sizable New American menu in contemporary surrounds*
- Starbucks, Chevy Chase Pavilion, 5335 Wisconsin Ave NW
- Whole Foods, 4420 Willard Ave, Chevy Chase, MD 20815
- Chipotle, 4471 Willard Ave, Chevy Chase, MD 20815

Bethesda Metro

- Jaleo, 7271 Woodmont Ave, Bethesda, MD 20814: *Tapas-focused Spanish fare in an airy, colorful bistro*
- Gringos & Mariachis, 4928 Cordell Ave, Bethesda, MD 20814: *A taco-heavy menu & creative margaritas star at this Mexican joint*
- Olazzo, 7921 Norfolk Ave, Bethesda, MD 20814: *Neighborhood fixture offering Italian fare with modern accents*
- Starbucks, 4520 East West Highway, Bethesda, MD 20814

System Map

wmata.com
Customer Information Service: 202 637-7000
TTY Phone: 202 638-3780
Metro Transit Police: 202 962-2121

Legend

- RD Red Line • Glenmont / Shady Grove
- OR Orange Line • New Carrollton / Vienna
- BL Blue Line • Franconia-Springfield / Largo Town Center
- GR Green Line • Branch Ave / Greenbelt
- YL Yellow Line • Huntington / Fort Totten
- SV Silver Line • Wiehle-Reston East / Largo Town Center

Station Features
- Bus to Airport
- P Parking
- H Hospital
- Airport

Connecting Rail Systems
Amtrak, VRE, MARC

Transfer Station
Station in Service
Under Construction
Full-Time Service
Rush-Only Service: Monday-Friday
6:30am - 9:00am 3:30pm - 6:00pm

Metroral Operating Times

Mon-Thu	5am-midnight
Fri	5am-3am
Sat	7am-3am
Sun	7am-midnight

Times are approximate

Metro is accessible.

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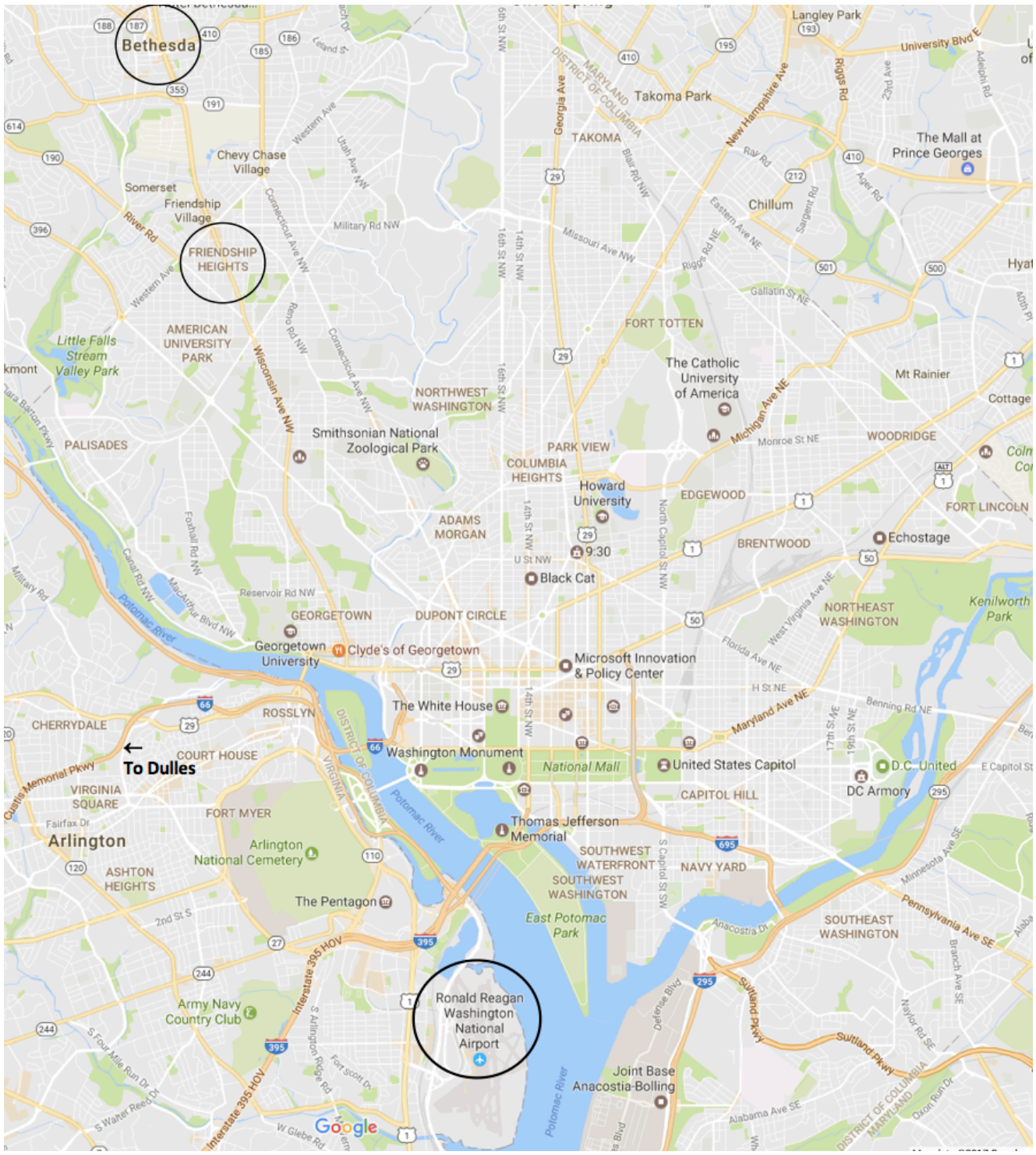
Map is not to scale

No Smoking
No Eating or Drinking
No Animals (except service animals)
No Audio (without earphones)
No Littering or Spitting
No Dangerous or Flammable Items


Bethesda
Chevy Chase Village
Somerset
Friendship Village
FRIENDSHIP HEIGHTS
AMERICAN UNIVERSITY PARK
Little Falls Stream Valley Park
PALISADES
Smithsonian National Zoological Park
NORTHWEST WASHINGTON
Takoma Park
TAKOMA
Langley Park
The Mall at Prince Georges
Chillum
FORT TOTTEN
The Catholic University of America
Mt Rainier
Cottage
WOODRIDGE
PARK VIEW
COLUMBIA HEIGHTS
Howard University
EDGEWOOD
FORT LINCOLN
ADAMS MORGAN
BRENTWOOD
Echostage
9:30
Black Cat
GEORGETOWN
DUPONT CIRCLE
Georgetown University
Clyde's of Georgetown
NORTHEAST WASHINGTON
Kenilworth Park
Microsoft Innovation & Policy Center
The White House
ROSSLYN
CHERRYDALE
COURT HOUSE
To Dulles
Washington Monument
National Mall
United States Capitol
D.C. United
DC Armory
CAPITOL HILL
VIRGINIA SQUARE
FORT MYER
Arlington
Arlington National Cemetery
Thomas Jefferson Memorial
SOUTHWEST WATERFRONT
NAVY YARD
SOUTHWEST WASHINGTON
ASHTON HEIGHTS
The Pentagon
East Potomac Park
SOUTHEAST WASHINGTON
Army Navy Country Club
Ronald Reagan Washington National Airport
Joint Base Anacostia-Bolling
Google

Big Data Regional Innovation Hubs: Establishing Spokes to Advance Big Data Applications (BD Spokes)

PROGRAM SOLICITATION
NSF 17-546

REPLACES DOCUMENT(S):
NSF 16-510

National Science Foundation

Directorate for Computer & Information Science & Engineering

Directorate for Education & Human Resources

Directorate for Social, Behavioral & Economic Sciences

Directorate for Mathematical & Physical Sciences
Division of Chemistry

Office of International Science and Engineering

Full Proposal Deadline(s) (due by 5 p.m. submitter's local time):

September 18, 2017

IMPORTANT INFORMATION AND REVISION NOTES

This solicitation expands upon the BD Hubs network established by the solicitations entitled *Big Data Regional Innovation Hubs (BD Hubs): Accelerating the Big Data Innovation Ecosystem* solicitation (NSF 15-562) and *Big Data Regional Innovation Hubs (BD Spokes): Establishing Spokes to Advance Big Data Applications* (NSF 16-510).

All (SMALL or MEDIUM) BD Spoke proposals submitted in response to this solicitation must include a Letter of Collaboration from a regional BD Hub. Any BD Spoke proposal not including a Letter of Collaboration from a BD Hub will be returned without review. No exceptions will be made.

Salient Changes From Previous BD Spokes Solicitation (NSF 16-510):

Restructuring of award types – NSF 16-510 described two award categories to which proposals could be submitted: Planning awards and BD Spoke awards. This solicitation has discontinued Planning awards and instead establishes two categories of BD Spoke awards: SMALL and MEDIUM.

Letters of Intent are no longer required – NSF 16-510 required potential proposers to submit a Letter of Intent (LOI) before submitting a full proposal. A LOI is no longer required under this solicitation.

Any proposal submitted in response to this solicitation should be submitted in accordance with the revised *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) (NSF 17-1), which is effective for proposals submitted, or due, on or after January 30, 2017.

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Big Data Regional Innovation Hubs: Establishing Spokes to Advance Big Data Applications (BD Spokes)

Synopsis of Program:

NSF's Directorate for Computer and Information Science and Engineering (CISE) initiated the National Network of Big Data Regional Innovation Hubs (BD Hubs) program in FY 2015. Four BD Hubs – *Midwest*, *Northeast*, *South*, and *West* – were established to foster multi-sector collaborations among academia, industry, and government, both nationally and internationally. These BD Hubs are serving a convening and coordinating role by bringing together a wide range of Big Data stakeholders in order to connect solution seekers with solution providers.

In FY 2016, the *Big Data Regional Innovation Hubs: Establishing Spokes to Advance Big Data Applications (BD Spokes)* solicitation began extending the BD Hubs network by establishing multi-institutional and multi-sector collaborations to focus on topics of specific interest to a given region. The first set of BD Spokes was funded in FY 2016. This solicitation calls for new BD Spoke proposals to be awarded in FY 2018. Collaborating with BD Hubs, each BD Spoke will focus on a particular topic that requires Big Data approaches and solutions. The set of activities managed by a BD Spoke will promote progress towards solutions in the chosen topic area. The regional BD Hub Steering Committee will provide general guidance to each BD Spoke and will assist the BD Spoke in coordinating with the national BD Hub network, with other BD Spokes, and with the broader innovation ecosystem.

The Big Data activities of a BD Spoke will be guided by the following broad themes:

- Accelerating progress towards addressing societal grand challenges relevant to the regional and national priority areas defined by the BD Hubs (information on priority areas can be found on each Hub's website listed in the Introduction section below);
- Helping automate the Big Data lifecycle; and
- Enabling access to and spurring the use of important and valuable available data assets, including international data sets where relevant.

NSF's overall Big Data research and development (R&D) portfolio includes fundamental research, infrastructure development and provisioning, education and workforce development, and community engagement. Not all of these aspects of the overall portfolio are covered by this solicitation. **In particular, this solicitation is not meant to fund proposals in which fundamental research is the primary activity**. If research is a substantial portion of the proposed activities, please consult with a cognizant NSF program officer of this solicitation to help find a more appropriate solicitation. For example, projects focused on foundations and innovative applications related to Big Data may be better suited for submission to the *Critical Techniques and Technologies for Advancing Foundations and Applications of Big Data Science & Engineering (BIGDATA)* program. Similarly, projects focused

primarily on privacy research may be more suited to NSF's Secure and Trustworthy Cyberspace (SaTC) program.

There are two proposal categories covered by this solicitation: SMALL and MEDIUM BD Spokes.

All (SMALL or MEDIUM) BD Spoke proposals submitted in response to this solicitation must include a Letter of Collaboration from a regional BD Hub. Proposals not including a Letter of Collaboration from a BD Hub will be returned without review. No exceptions will be made.

Cognizant Program Officer(s):

Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.

- Fen Zhao, Directorate for Computer and Information Science and Engineering, telephone: (703) 292-7344, email: fzhao@nsf.gov
- Earnestine Psalmonds-Easter, Directorate for Education & Human Resources, telephone: (703) 292-8112, email: epsalmon@nsf.gov
- Cheryl L. Eavey, Directorate for Social, Behavioral, and Economic Sciences, telephone: (703) 292-7269, email: ceavey@nsf.gov
- Lin He, Directorate for Mathematical and Physical Sciences, telephone: (703) 292-4956, email: lhe@nsf.gov
- Seta Bogosyan,Office of International Science and Engineering, telephone: (703) 292-4766, email: sbogosya@nsf.gov
- Deborah Shands, Directorate for Computer and Information Science & Engineering, telephone: (703) 292-4505, email: dshands@nsf.gov
- Kenneth Whang, Directorate for Computer and Information Science and Engineering, telephone: (703) 292-5149, email: kwhang@nsf.gov

Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

- 47.049 --- Mathematical and Physical Sciences
- 47.070 --- Computer and Information Science and Engineering
- 47.075 --- Social Behavioral and Economic Sciences
- 47.076 --- Education and Human Resources
- 47.079 --- Office of International Science and Engineering

Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 10 to 20

BD Spoke awards -- Approximately 10 to 20 total awards across both the SMALL and MEDIUM categories are anticipated through this solicitation.

The total number of awards will be subject to the outcome of panel reviews and availability of funds.

Anticipated Funding Amount: $10,000,000

Each SMALL project will be funded at $100,000 to $500,000 total for up to three years, subject to the availability of funds.

Each MEDIUM project will be funded at $500,001 to $1,000,000 total for up to three years, subject to the availability of funds.

Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Universities and Colleges - Universities and two- and four-year colleges (including community colleges) accredited in, and having a campus located in, the US acting on behalf of their faculty members. Such organizations also are referred to as academic institutions.
- Non-profit, non-academic organizations: Independent museums, observatories, research labs, professional societies and similar organizations in the U.S. associated with educational or research activities.
- State and Local Governments: State educational offices or organizations and local school districts.

Who May Serve as PI:

There are no restrictions or limits.

Limit on Number of Proposals per Organization: 1

An organization may participate as submitting organization (or, in the case of collaborative proposals, as the lead organization) for at most one proposal responsive to this solicitation.

Proposal submissions are limited to 1 per organization (except as non-lead in a collaborative proposal) to maintain a balanced geographic representation of the Regional Hubs and Spokes program and to increase diversity of participating institutions.

Limit on Number of Proposals per PI or Co-PI: 1

An investigator may participate as PI or Co-PI in no more than one proposal submitted in response to this solicitation, irrespective of proposal category. However, there is no limit on the number of proposals on which an individual may serve as Senior Personnel.

These eligibility constraints will be strictly enforced in order to treat everyone fairly and consistently. In the event that an individual exceeds this limit, proposals received within the limit will be accepted based on earliest date and time of proposal submission (i.e., the first proposal received will be accepted and the remainder will be returned without review). No exceptions will be made.

Big Data Spokes:
South Hub Submission Guidelines

Overview:
The National Science Foundation (NSF) has announced a call for Big Data Spoke proposals through the program solicitation "Big Data Regional Innovation Hubs: Establishing Spokes to Advance Big Data Applications (BD Spokes)." The South Big Data Hub is accepting requests for Letters of Collaboration from PIs in our region.

To read the program solicitation (NSF 17-546), visit the program solicitation page at NSF.gov.
For an overview of the program, visit the program page at NSF.gov.

Key Deadlines:
June 19, 2017: Deadline to request a letter of collaboration from the Big Data Hubs. See the Submissions section below for more information about submitting your request. Proposals that receive letters of collaboration should then be sent to the host institution of the PI, which is responsible for selecting one to submit to the NSF. Per the solicitation:

> An organization may participate as submitting organization (or, in the case of collaborative proposals, as the lead organization) for at most one proposal responsive to this solicitation.
> Proposal submissions are limited to 1 per organization (except as non-lead in a collaborative proposal) to maintain a balanced geographic representation of the Regional Hubs and Spokes program and to increase diversity of participating institutions.

September 18, 2017: Deadline to submit full Spoke proposals to NSF, which must include a letter of collaboration from a Big Data Hub.

Submissions:
You may submit a request for a Letter of Collaboration from the South Big Data Hub at http://b.gatech.edu/2oTVVyy.

Proposals which do not fall within the South region, per the instructions below, should be submitted to the appropriate Big Data Hub via their websites, listed at the bottom of this page.

Process:

1. Determine the Hub to which your project is associated. This is determined by the institution of the lead Principal Investigator. i.e. If the lead PI on a collaborative proposal is from Virginia Tech, the proposal would be submitted to the South Hub (no matter the locations of other collaborators).

MIDWEST: This region includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.
NORTHEAST: This region includes Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

SOUTH: This region includes Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.
WEST: This region includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

2. To request a Letter of Collaboration from the South Big Data Hub, fill out the form at http://b.gatech.edu/2oTVVyy
3. Submissions will be reviewed on a rolling basis. Hub reviews will focus on "fit and feasibility." That is, we will consider how a given project fits or aligns with the thematic or priority areas of interest in our region, and how feasible the proposed coordination with the Hub is based on availability of resources. NSF priority areas listed in the Solicitation are welcome, but not limiting in the scope of projects that will be considered. In other words, all current Hub Spoke and Ring areas and suggestions for projects in new areas will also be welcome.

Please email info@southbdhub.org with any questions about submissions. Contact information for the other Big Data Hubs is provided below.
Midwest: info@midwestbigdatahub.org | midwestbigdatahub.org
Northeast: contact@nebigdatahub.org | nebigdatahub.org
West: info@westbigdatahub.org | westbigdatahub.org

This information is available at https://southbdhub.wordpress.com/2017/04/28/big-data-spokes-south-hub-submission-guidelines/.