

**Giri Prakash**  
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**Research and Professional Experience**

2018 – Current      Group Leader, Atmospheric Radiation Measurement (ARM) Data Science and Integration, Oak Ridge National Laboratory

Provide cutting-edge computing capabilities and observational and modeling data on atmospheric phenomena to scientists around the world through the ARM Data Center.

2014 – Current      Data Services and Operation Manager, DOE ARM Facility

Provide management and leadership for the ARM computing environment, product delivery, and user interaction. This includes the end-to-end definition and operational execution of collection, processing, and delivery of quality-assured measurement data products from the research sites to the archive; discovery; and distribution of data to the scientific user community.

2015 – Current      Director, ARM Data Center, Oak Ridge National Laboratory

Responsible for overall operation of the ARM Data Center. The Data Center currently stores and serves about 1.8 petabytes of data and actively adds 20 TB of new data per month. Responsible for implementation of next-generation data processing workflow using leading-edge big data and computing architecture.

2011–2014      Senior research and development staff, Oak Ridge National Laboratory  
2009–2011      Research and development staff, Oak Ridge National Laboratory  
2006–2009      Research and development associate, Oak Ridge National Laboratory  
2004–2006      Research and development assistant, Oak Ridge National Laboratory  
2002–2004      Post-masters research assistant, Oak Ridge National Laboratory

## **Recent News Articles and Synergistic Activities**

1. Representing ARM Data Services Around The World:  
<https://www.arm.gov/news/facility/post/58267>
2. From Antarctica to the Azores: An Atmosphere’s Worth of Data with Giri Prakash:  
<https://www.ornl.gov/blog/eesd-review/antarctica-azores-atmosphere-s-worth-data-giri-prakash>
3. ARM Data Center Moves Forward on Priorities in Fiscal Year 2019:  
<https://www.arm.gov/news/facility/post/58276>
4. Big Data in Brazil: ARM Shares Best Practices at São Paulo Workshop:  
<https://www.arm.gov/news/facility/post/47252>
5. ARM Data Center Reaches One Petabyte: <https://www.arm.gov/news/facility/post/43980>
6. Session leader for “Data Centers from around the World – Sharing Best Practices,” CODATA, 2019, Beijing
7. Invited talk: “A Modern Data Center Architecture to Enable Next Generation Data Science,” SciData Conference, 2018, Botswana
8. Invited keynote speaker, III Workshop on Data Science of Escola Politécnica, University of São Paulo–Brazil, 2017

## **Publications**

1. R. Devarakonda, G. Prakash, et al., “Next-gen tools for big scientific data: ARM data center example,” *2016 IEEE International Conference on Big Data (Big Data)*, Washington DC, 2017, pp. 3968–3970. doi: 10.1109/BigData.2016.7841078
2. G. Prakash, J. Kumar, E. Rush, R. Records, A. Clodfelter, J. Voyles, “HPC infrastructure to support the next-generation ARM facility data operations,” *2016 IEEE International Conference on Big Data (Big Data)*, Washington DC, 2016, pp. 4026–4028. doi: 10.1109/BigData.2016.7841098
3. G. Prakash, B. Shrestha, K. Younkin, R. Jundt, M. Martin, J. Elliott, “Data always getting bigger—A scalable DOI architecture for big and expanding scientific data,” *Data* 2016, 1: 11.
4. P. Yilmaz, R. Kottman, D. Field, R. Knight, J. R. Cole, G. Palanisamy, et al., “Minimum information about a marker gene sequence (MIMARKS) and minimum information about any (x) sequence (MIxS) specifications,” *Nature Biotechnology* 2011, 29: 415–420.
5. R. Devarakonda, G. Palanisamy, J. Green, B. Wilson. “Mercury: Reusable metadata management, data discovery and access system,” *Earth Science Informatics* 2010, 3(1–2): 87–94. doi: 10.1007/s12145-010-0050-7

## **Significant Awards and Patents**

2013	United States Copyright (Registration Number TXu 1-873-934) “Mercury-Metadata Data Management System” (June 18, 2013)
2008	NASA Earth Science Data Systems Peer-Recognition Software Reuse Award
2006	NASA Group Achievement Award for Best Customer Support Team

## **Education**

2001	University of Calgary, software engineering (OOST) diploma
2000	Memorial University of Newfoundland, environmental science, MS
1997	Tamil Nadu Agricultural University, soil science, MS
1995	Tamil Nadu Agricultural University, agriculture, BS