

Alexa Harter

Laboratory Director

Cybersecurity, Information Protection, and Hardware Evaluation Research Laboratory

Dr. Alexa W. Harter is Director of the Cybersecurity, Information Protection, and Hardware Evaluation Research (CIPHER) Laboratory at the Georgia Tech Research Institute. CIPHER Lab's mission is to develop technologies that secure, defend, and respond to threats within our country's information, distribution, and network systems. Dr. Harter was previously the Associate Director and Chief Scientist of the Advanced Concepts Laboratory (ACL), a GTRI unit that focuses on the transition of basic research to prototype systems with new capabilities.



Dr. Harter has been instrumental in initiating and developing the quantum systems and quantum computing research program at GTRI. Her management of this effort has included standup and leadership of the Quantum Systems Branch, now the Quantum Systems Division of CIPHER Lab. Researchers in the Quantum Systems Division investigate quantum computing systems based on individual trapped atomic ions and novel quantum sensor devices based on atomic systems.

Dr. Harter joined GTRI in 2001 as a member of the Electromagnetic Materials and Structures Branch, where she conducted research in magnetic metamaterials, with the goal of tailoring electromagnetic response through morphology and material composition. Dr. Harter was promoted to Quantum Systems Branch Head in 2008, ACL Chief Scientist in 2013, and ACL Associate Laboratory Director in 2014. As Chief Scientist and Associate Lab Director of ACL, she coordinated research activities across multiple Divisions in diverse areas including novel antennas and materials, advanced signal processing and systems, quantum information, and quantum sensors.

Dr. Harter holds the title of Regents Researcher, the highest-level designation for researchers within the University System of Georgia, as awarded by the Board of Regents in 2016. Dr. Harter has been recognized for her research contributions to GTRI and Georgia Tech as the winner of GTRI's Outstanding Performance in Research and Development Award (2016) and the Georgia Tech Executive Vice President for Research's Outstanding Achievement in Research Program Development Award (2010). She was elected as a GTRI Fellow in 2014, and named as a Nunn-MacArthur Security Fellow in the Georgia Tech Sam Nunn School of International Affairs in 2013.

Dr. Harter received her Bachelor of Science in Physics and Mathematics from Brown University in 1991 and her Doctorate in Physics from the California Institute of Technology in 2000, where she investigated theories of phase transitions under dynamic conditions using superfluid Helium-4.