CMQT
CENTER FOR MOLECULAR
QUANTUM TRANSDUCTION

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Martin V. Holt

Dr. Martin Holt has been an Argonne scientist for over 20 years, leading the development of unique scattering tools for frontier microscopy of materials physics, including the creation of the world's first synchrotron Hard X-ray Nanoprobe operated by the Center for Nanoscale Materials in partnership with the Advanced Photon Source. Over the last five years as Characterization Thrust Leader and now Director of Q-NEXT National Quantum Information Science Research Center he has been exploring the use of time-resolved nanoscale synchrotron diffraction microscopy to achieve atomic-scale control in matter-based quantum systems.

Q-NEXT National QIS Research Center: Progress and Outlook

Q-NEXT is a U.S. Department of Energy National Quantum Information Science Research Center led by Argonne National Laboratory in partnership with SLAC National Accelerator Laboratory, one of five NQISRCs recently renewed by the DOE Office of Science. Q-NEXT brings together 80 of the world's leading quantum information researchers from 19 government, academic and industry organizations to realize a common vision: enable the next great leap in information processing by realizing complex and powerful quantum systems through a center-scale effort demonstrating the power of distributed entanglement for quantum information technologies. Recent progress made by our Center and vision for the future will be reviewed within the context of current results.