

Wesley C. Roberts, Ph.D. TECHNOLOGY SPECIALIST

Lincoln Office
55 Old Bedford Road, Lincoln, MA 01773
978.202.3447
Wesley.Roberts@hbsr.com



PRACTICE AREAS

- Patents
- Design Patents
- Licensing

TECHNOLOGIES

- Optics & Photonics
- Semiconductors
- Electrical Engineering
- Energy Storage
- Materials Science
- Clean Technology
- Telecommunications
- Artificial Intelligence

EDUCATION

- B.S. in Physics/ Philosophy, Summa Cum Laude, University of Pittsburgh
- M.St. in Philosophy of Physics, University of Oxford
- Ph.D. in Physics,
 National Defense
 Science and
 Engineering Graduate
 (NDSEG) Fellow,
 Northeastern University

Wesley Roberts is a theoretical physicist whose research focused on quantum dynamics and nonlinear optics, with particular emphasis on the theoretical foundations of emerging quantum technologies, including quantum computation, communication, and sensing. In addition to his physics background, he has a strong interest in applying advanced mathematics and computational methods across various domains.

His technical expertise spans a wide range of quantum theory topics, including quantum materials, nonlinear optics, magnonics and spintronics, quantum spin systems, non-equilibrium quantum dynamics, and quantum geometry and topology.

Wesley earned his Ph.D. in Physics from Northeastern University as a National Defense Science and Engineering Graduate (NDSEG) Fellow, specializing in condensed matter theory and quantum information. He also holds an M.St. in Philosophy of Physics from the University of Oxford and a B.S. from the University of Pittsburgh with a double major in Physics and Philosophy.

After completing his Ph.D., Wesley worked as a postdoctoral research fellow in the U.S. Army Research Laboratory's Advanced Electronics Division, where he modeled nonlinear optical properties of novel quantum materials such as transition-metal dichalcogenides (TMDs) and Dirac/Weyl semimetals. This work was based at MIT's Institute for Soldier Nanotechnology.

Beyond his academic research, Wesley worked in technology transfer as a commercialization specialist at Northeastern University's Center for Research Innovation, supporting patenting strategies and partnership development for emerging quantum technologies. He is also a recognized educator, having received Northeastern University's Lawrence Award for Excellence in Teaching.