Post-doctoral position

General Information	**Workplace**: Scanning Probe Microscopy Group (https://sites.temple.edu/ltspm/) in the Physics Department at Temple University, Philadelphia, PA USA. **Type of contract**: 1 year with possible extension up to 4 years upon performance. **Expected start date**: 2021 **Remuneration**: Competitive salary commensurate with experience **Education**: requirements include a Ph.D in Physics, Materials Science or a related field. **Required experience**: previous experience with scanning tunneling microscopy, cryogenics and UHV will be preferred.
Research Project	The candidate will participate in the research activities of the Scanning Probe Microscopy Group at Temple University which focuses on the study of materials used for superconducting qubits with the goal to understand and mitigate the sources of decoherence. In order to carry on this project, the candidate will have access to low temperature scanning tunneling microscope (down to 300 mK) in UHV, coupled to a preparation chamber equipped with fabrication and analytical tools. Furthermore, other fabrication and characterization tools will be available at Temple Materials Institute or at nearby user facilities at Drexel University, at University of Pennsylvania or at National Laboratories. This project is part of the Superconducting Quantum Materials and Systems (SQMS) Center. The SQMS Center was established by the National Quantum Initiative Act as a hub in a new cooperative ecosystem built from National Labs, Universities and leading companies. Areas of research including qubit technologies based on superconducting circuits and cavities.
Assignments	The candidate will carry on the project described above and will contribute to the supervision of graduate and undergraduate students involved in this project.
Skills	The ideal candidate is expected to have a solid background in condensed matter physics with a PhD level qualification in Physics or a related area. Prior experience with scanning probe techniques would be a significant advantage. Furthermore, the candidate is expected to have a background in programming with Matlab and other data processing software and data analysis and should have demonstrated strong oral and written communications skills. The ability to be an excellent team player, to present reports at meetings or conferences and prepare manuscript for publication is essential.
Work environment	The scanning probe group is in the Physics Department at Temple University located in a new facility, the Science Education and Research Center. The primary research areas in the department involve condensed matter physics, nuclear and particle physics, and AMO physics with a strong component of high performance computing. The SQMS Center is an interdisciplinary Center that brings together experts from 12 top tier Universities, 5 Government and National Labs, 3 Industrial Partners. The candidate will have opportunities to establish good networking and become competitive for future possible openings in quantum science at academia, national labs and industries.
Supplementary Information	**Contact**: Interested applicants should send a cover letter, CV and a research statement to Prof. Maria Iavarone (iavarone@temple.edu). They also should arrange for three reference letters to be sent to the same e-mail address. For further information regarding: -the scanning probe group, visit the website: https://sites.temple.edu/ltspm/ -the SQMS Center, visit the website: https://sqms.fnal.gov/