Facilities, Equipment, and Other Resources

FACILITIES:

Laboratory Facilities: The PI has dedicated laboratory space on the downtown campus of the University of Colorado Denver, near Physics faculty and staff offices and other Physics Department resources. Roberts' computational laboratory is 380 sq ft and provides working space for at least six students. Her lab includes an ADA-accessible "telephone booth" for group members who need to join remote meetings with collaborators.

Computer Facilities: Internet services (off-site as well as connections between the lab and offices) are maintained by the campus Information Technology Services, as are secure web servers for all aspects of the CU Denver campus operations, including research group activities. All offices and laboratories have ample network ports.

In addition to these campus-level networking resources, our computational tools include dedicated laboratory computers. Roberts' computational tools includes three workstations and three laptops available for student check-out, in addition to monitor stations that are equipped with USB-C docking stations. This setup allows students to work when and where they need and provides a convenient space for short conferences. All of the available machines can be used for data analysis and data acquisition development. All of the available machines have software and operating system support administered by the campus Information Technology Services.

Office Facilities: The PI is also provided with a private office with telephone and computer network connections. Other personnel will be quartered in laboratory offices as described above or in temporary or shared office spaces.

Other Facilities: The PI has access to computing clusters at SLAC and U. of Minnesota. Access is available to any group members who are performing work relevant to the SuperCDMS collaboration. The clusters and the test-facility data acquisition computers are maintained by their local institutions.

MAJOR EQUIPMENT:

The PI does not have additional major equipment; no major equipment is needed for this proposal.

OTHER RESOURCES:

The CU Denver group is provided with department-level support from a shared secretarial staff.

Prototyping Facilities: In addition to dedicated laboratory space, the PI has access to physics department prototyping spaces. This includes an electronics bench suitable for basic circuit design, construction, and testing; equipped with programmable DC power supplies, programmable signal generators, 50 MHz oscilloscopes, and multimeters. The prototyping space also has mills, lathes, 3D printers, and a laser cutter for building a variety of apparatus. A small wood shop is also availble and houses a band saw, jig saw, and hand-held router. A full-time machinist is available for fabrication and student certification.

Student Support: CU Denver students have 24/7 access to a food pantry that is stocked with non-perishable foods and sanitary products. In addition, the CU Denver Career Center offers career services to both undergraduate and graduate students and uses the handshake platform extensively to match students with on-campus research opportunities. The counselors at the Career Center are certified in [some kind of therapy thing] and serve as a complementary career-readiness resource to the PI.

Senior Personnel: Roberts anticipates hiring a professional research assistant (PRA) to work on implementing standards-based data analysis tools. The Physics Department along with the College of Liberal Arts and Sciences commits additional time for the PRA to work on this proposal.