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The STaRBURSTT - CyberDiffraction Consortium Undergraduate Research Initiative. Allen D. Hunter,[1] M. Bond,[2] G. Crundwell,[3] G.M. Ferrence,[4] K.A. Kantardjieff,[5] P. Szalay,[6] T.R. Wagner,[1] Matthias Zeller,[1] R. Hoff.[1] [1]Dept. of Chemistry, Youngstown State Univ., YSU-PUI Undergraduate Diffraction Consortium, Youngstown, [2]Dept. of Chemistry, Southeast Missouri State Univ., [3]Dept. of Chemistry, Central Connecticut State Univ., [4]Dept. of Chemistry, Illinois State Univ., [5]Dept. of Chemistry and Biochemistry and W. M. Keck Foundation Center for Molecular Structure, California State Univ., [6]Dept. of Chemistry, Muskingum College.

Single crystal diffraction studies are becoming increasingly important in a wide range of fields and they are at least as valuable for undergraduates as for PhDs. Unfortunately, the large majority of Predominantly Undergraduate Institutions lack both a single crystal instrument and the expertise to use one. The Science Teaching and Research Brings Undergraduate Research Strengths Through Technology, STaRBURSTT, CyberDiffraction Consortium links the X-ray diffraction facilities and people at our core PUI hubs (California State University Fullerton, Central Connecticut State University, Illinois State University, South East Missouri, and Youngstown State University) with external users. We provide a range of services to PUI faculty and students (and to others on a time available basis). These include traditional service crystallography and local and remote access to our point and area detector equipped single crystal and powder diffractometers. We also are working to develop, evaluate, and distribute crystallographic education materials.

Our current operations, our plans for future expansion, and how new users may join the STaRBURSTT-CDC will be discussed as will be the advantages and disadvantages of such a distributed remote access model. Feedback will be sought from other crystallographers who have for their instruments or who have used on the instruments of others remote access procedures.