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Abstract for an Invited Paper for the APR18 Meeting of the American Physical Society

The Value of Undergraduate Research Participation in Physics, and in National DNP Meetings via the Conference Experience for Undergraduates W.F. ROGERS, Indiana Weslevan University

I will share some thoughts and observations on the important value of undergraduate research participation in physics, and the critical role it plays in equipping and motivating undergraduate students for a career in physics or related field. I have been privileged to mentor approximately 40 undergraduate students in my 30 year career, a significant fraction of whom have gone on to pursue advanced STEM degrees, including several physics PhDs. I will highlight some of our successes in the MoNA collaboration, involving undergraduate students in cutting-edge research on neutron-rich exotic nuclei, based at the National Superconducting Cyclotron Laboratory at Michigan State University. In 1998 I designed the Conference Experience for Undergraduates (CEU) in the Division of Nuclear Physics, and organized it for 18 consecutive years before handing it off to new leadership in fall 2016. To date approximately 2000 students have participated in the program, and data point to the positive impact this experience has had on students through the years. The recent 20^{th} anniversary CEU was held at the fall 2017 DNP meeting in Pittsburgh, PA, where the conference plenary session was organized around success of the CEU program, in which three of the four speakers were CEU alums.