

Abstract Submitted  
for the APR21 Meeting of  
The American Physical Society

**TPEX@DESY: Test Measurements with Calorimeter Based on Lead Tungstate Crystals**<sup>1</sup> IVICA FRISCIC, Massachusetts Institute of Technology MIT, TPEX COLLABORATION — In this talk we will present the results of the test measurements performed with the  $3 \times 3$  PbWO<sub>4</sub> calorimeter at the DESY test beam facility. The goal of measurements was to study the performance of two data acquisition systems: trigger-based readout with a QDC and a triggerless readout based on a digitizer. Calorimeters of this type will be the key component of an experimental setup for the future Two-Photon Exchange eXperiment (TPEX), which will provide new data on the next-to-leading order term in the QED description of electron-proton scattering process up to  $Q^2 = 4.6$  (GeV/c)<sup>2</sup> (doubling the range compared to current data).

<sup>1</sup>This work is supported by DOE grant DE-FG02-94ER40818.

Ivica Friscic  
Massachusetts Institute of Technology MIT

Date submitted: 08 Jan 2021

Electronic form version 1.4