

Abstract Submitted  
for the APR21 Meeting of  
The American Physical Society

**Statistical Treatment of Wire-Cell Low Energy Excess Search at MicroBooNE** KAICHENG LI, Yale University, MICROBOONE COLLABORATION — MicroBooNE is a 85 metric ton active volume single-phase Liquid Argon Time Projection Chamber (LArTPC) experiment at Fermilab. One of the main scientific goals of MicroBooNE is to investigate the low energy excess (LEE) of electron neutrino events observed by the MiniBooNE experiment. Wire-Cell, which started as a novel LArTPC tomographic event reconstruction method, has developed into a full analysis chain. This talk will describe the statistical treatment used in the Wire-Cell LEE search, covering methods for estimating systematic uncertainty, as well the choice of test statistics and related statistical procedures for estimating LEE sensitivity and significance level.

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Date submitted: 07 Jan 2021

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