

Abstract Submitted  
for the TSF19 Meeting of  
The American Physical Society

**Calculating the distance to SN 2007gr using the Expanding Photosphere Method** RYAN STATEN, Southern Methodist University, ROTSE COLLABORATION — SN 2007gr is a type Ic supernova observed extensively by the Robotic Optical Transient Search Experiment (ROTSE). While the expanding photosphere method (EPM) is typically used to measure the distance to type IIP supernovae, this analysis aims to apply EPM to SN 2007gr. Although this object does not possess the hydrogen and helium envelope that is typically required for EPM, this work aims to assess the accuracy of this method of obtaining accurate cosmological distance measurements using a stripped envelope supernova.

Ryan Staten  
Southern Methodist University

Date submitted: 07 Oct 2019

Electronic form version 1.4