

Abstract Submitted  
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**Optical follow-up of GW170814 with the Dark Energy Camera<sup>1</sup>**

ZOHEYR DOCTOR, Univ of Chicago, DECam GW FOLLOW UP PROGRAM AND DES-GW TEAM — In recent years, mergers of two black holes have become a staple of astrophysics, allowing a new look at the universe. With the completion of a three-detector network of interferometers, the binary black hole merger GW170814 was localized to a smaller region than any previous merger, allowing optical follow-up of much of the probable sky area. In this talk, I will describe electromagnetic follow-up of binary black hole merger GW170814 with the Dark Energy Camera by the DECam GW follow-up program and DES-GW. I will present the analysis strategies used to process the data and preliminary results from the analysis.

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