



Highlights of Optical follow-up of gravitational wave events with DECAM

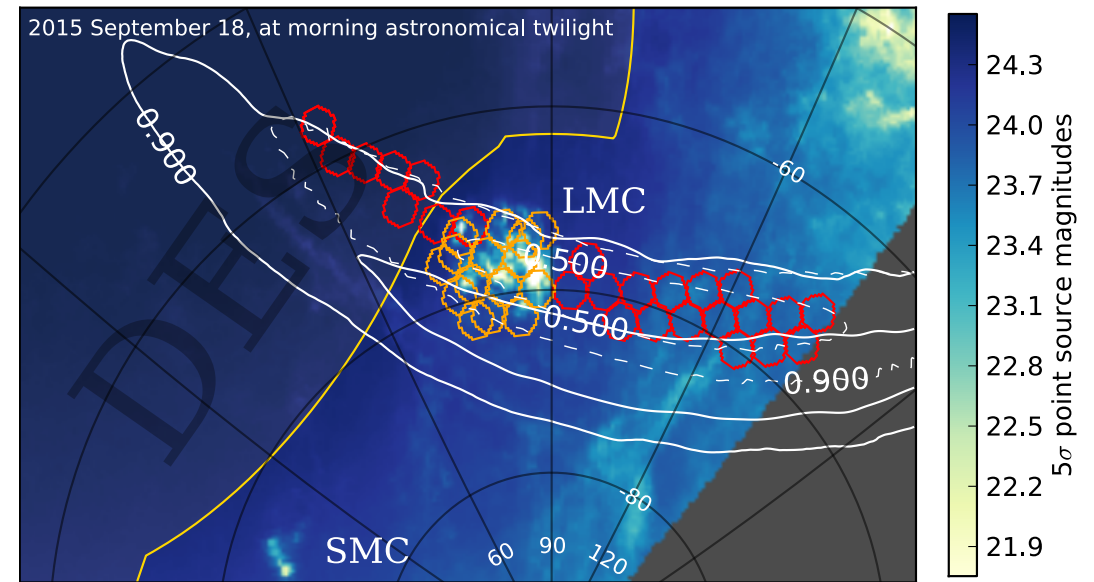
Ken Herner for the DES-GW group

CHEP 2016

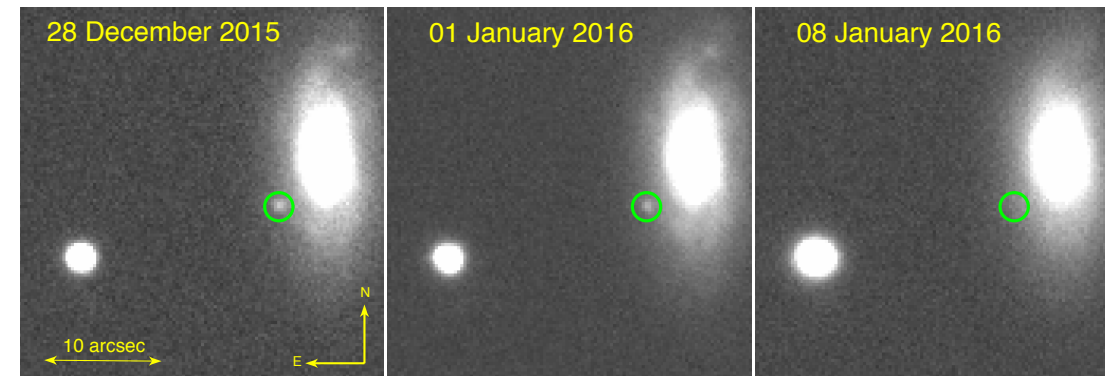
12 October 2016

DES-GW Introduction

- DES-GW is a joint venture between Dark Energy Survey, the LIGO/Virgo collaboration, and other community members for optical followup of gravitational wave candidate events (e.g. neutron star mergers would produce EM signatures)
- Computing challenges include algorithms to decide on observing plan, ability to rapidly provision opportunistic CPU resources for analysis
- Successful first season resulted in followup of both GW detection events announced by LIGO, resulted in 3 publications
- Numerous improvements included for second season getting underway now



Map of search images taken during followup of first LIGO event



Light fading over time of candidate object during followup of second LIGO event