

HARVARD UNIVERSITY  
Graduate School of Arts and Sciences



DISSERTATION ACCEPTANCE CERTIFICATE

The undersigned, appointed by the

**Department of Astronomy**

have examined a dissertation entitled

*From Design to Detection: Joint Gravitational Wave and Electromagnetic Astronomy*


presented by Philip Steven Cowperthwaite


candidate for the degree of Doctor of Philosophy, and hereby

certify that it is worthy of acceptance.

Signature   
Typed name: Prof. Jonathan E. Grindlay, Chair

Signature   
Typed name: Prof. Edo Berger

Signature   
Typed name: Prof. Daniel J. Eisenstein

Signature   
Typed name: Prof. Brian D. Metzger

Date: April 20, 2018