

HARVARD UNIVERSITY  
Graduate School of Arts and Sciences



DISSERTATION ACCEPTANCE CERTIFICATE

The undersigned, appointed by the  
Department of Physics  
have examined a dissertation entitled

Entanglement Dynamics in One Dimension: From Quantum Thermalization to  
Many-Body Localization

presented by Alexander Lukin

candidate for the degree of Doctor of Philosophy and hereby  
certify that it is worthy of acceptance.

Signature

A handwritten signature in blue ink, appearing to read 'M Greiner', written over a horizontal line.

Typed name: Professor Markus Greiner, Chair

Signature

A handwritten signature in blue ink, appearing to read 'E Demler', written over a horizontal line.

Typed name: Professor Eugene Demler

Signature

A handwritten signature in blue ink, appearing to read 'John Doyle', written over a horizontal line.

Typed name: Professor John Doyle

Date: September 11, 2018