



SCHRÖDINGER

# COLLOQUIUM

SERIES

[www.physik.uzh.ch/schroedinger](http://www.physik.uzh.ch/schroedinger)

**PROF. LAWRENCE M. KRAUSS** Arizona State University  
**Journey to the Beginning of Time: Gravitational  
Waves and Turning Metaphysics into Physics**

Gravitational Waves have now been discovered by LIGO, pushing the limits of modern technology and measuring extreme events in the universe that push the limits of what seems physically possible. This has opened up a vast new window on the cosmos and heralds a new era for astronomy in the 21<sup>st</sup> Century. If we can go further and detect a predicted

gravitational wave background from the earliest moments of the Big Bang, this will push our empirical handle on the universe back in time by 49 orders of magnitude, and will allow us to explore exotic ideas in particle physics, a quantum theory of gravity, and even the possible existence of other universes.

