



THE CHINESE UNIVERSITY OF HONG KONG  
Department of Physics  
COLLOQUIUM

# The Roundworm: Where Neuroscience Meets Biophysics

by

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*Date: January 6, 2012 (Friday)*  
*Time: 4:00 - 5:00 p.m.*  
*Place: L2 Science Centre, CUHK*

(Light refreshments will be served 20 minutes prior to the colloquium.)

ALL INTERESTED ARE WELCOME  
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## Abstract

A central goal in neuroscience is to understand how collective activities in the neural circuit give rise to complex behaviors. The millimeter long, optically translucent roundworm *C. elegans* appears to be an ideal model system to study neural circuit and behavior owing to its anatomical simplicity and genetic tractability. Recent development in genetics and biophysics has enabled us to monitor and manipulate neural activities in a free-moving worm using optical microscopy. Our multidisciplinary approach holds the promise of a deep mechanistic understanding of how a small neural circuit transforms sensory inputs to motor outputs. It is my hope that the principles uncovered from studying such a simple animal will be applicable to more complex nervous systems.