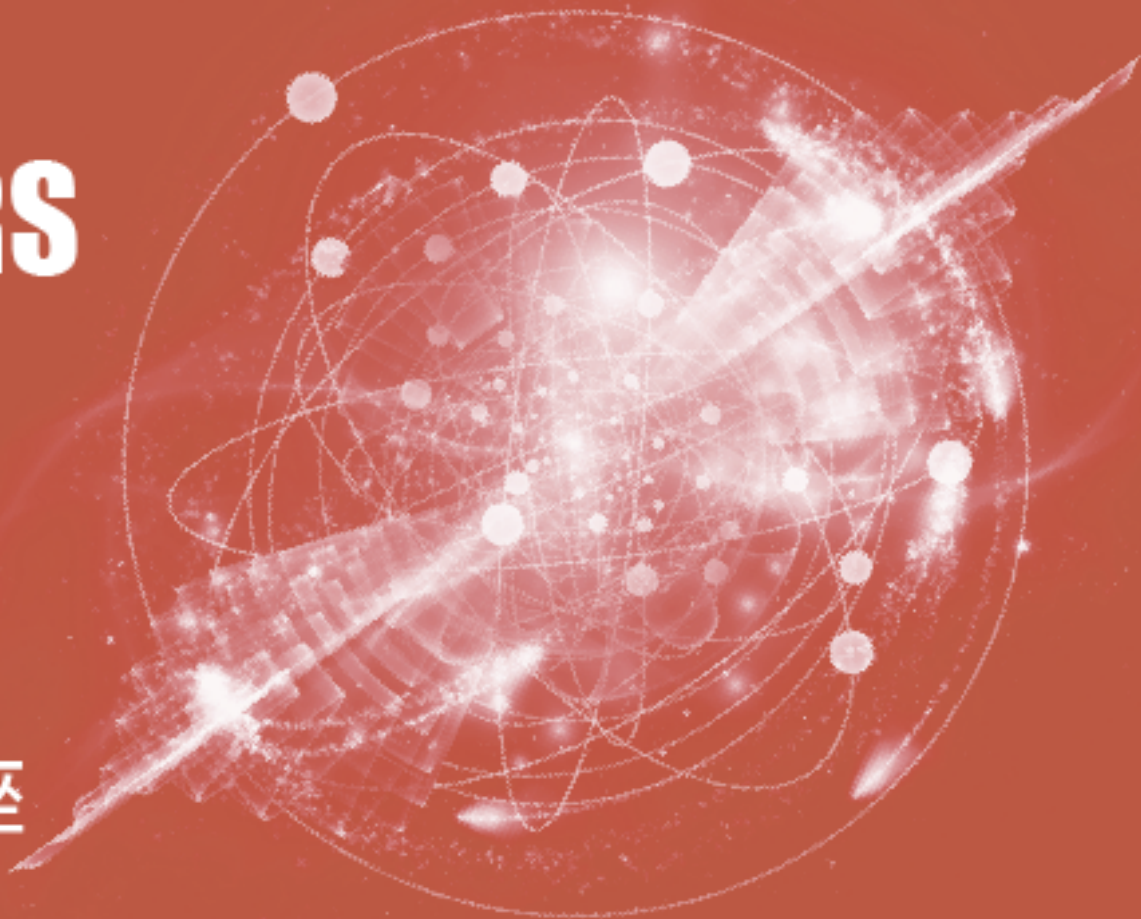


LECTURES ON FRONTIERS OF QUANTUM MATTERS

量子物质前沿讲座



清华大学
Tsinghua University

TITLE |

**A Web of (2+1)d Dualities in
Condensed Matter Physics**

SPEAKER |

**Chong Wang
(Harvard University)**



TIME |

3:00-4:30 June 19, 20, 22, 23, 2017



VENUE |

Room 322, Science Building
Tsinghua University

主办方：清华大学高等研究院

ABSTRACT

Two seemingly different quantum field theories may secretly describe the same underlying physics — a phenomenon known as “duality”. I will review some recent advances in field theory dualities in (2+1) dimensions and their applications in condensed matter physics.

The four lectures will cover: the boson-vortex duality, and its generalization to an entire web of dualities; electromagnetic dualities, topological insulators and superconductors; the half-filled Landau level problem and particle-hole symmetry; symmetries and dualities in deconfined quantum criticality.