ABOUT THE TALK

This talk reviews some of the applications of topology and topological defects in phase transitions in two-dimensional systems for which Kosterlitz and Thouless split half the 2016 Physics Nobel Prize. The theoretical predictions and experimental verification in two dimensional superfluids, superconductors and crystals will be reviewed because they provide very convincing quantitative agreement with topological defect theories.

ABOUT THE SPEAKER

Professor John Michael Kosterlitz is a British born Anglo-American physicist. He is the professor of physics at Brown University and the son of biochemist Hans Kosterlitz. He was awarded the 2016 Nobel Prize in Physics along with David Thouless and Duncan Haldane for their work on condensed matter physics.

Professor Kosterlitz received his bachelor and master degree from Gonville and Caius College, Cambridge, and his Ph.D. from Oxford University. He does research in condensed matter theory, one- and two-dimensional physics; in phase transitions: random systems, electron localization, and spin glasses; and in critical dynamics: melting and freezing. He has been awarded the Maxwell Medal from the British Institute of Physics, and the Lars Onsager Prize from the American Physical Society both for his work on the Kosterlitz-Thouless transition.

15 June 2017 (Thursday), 5pm

School of Biological Sciences, Classroom 1 (SBS-01n-33)
60 Nanyang Drive, Singapore 637551

Admission is free. Light refreshments will be provided.