by

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Lecture Hall

Simons Center for Geometry and Physics

Abstract

What are the fundamental constituents of matter at the shortest distances? This question has bothered humans almost since the beginning of civilization. At present string theory is the most promising answer to this question. This talk will review the main idea of string theory and some of the recent developments.

ASHOKE SEN

Ashoke Sen received a Masters degree from the Indian Institute of Technology, Kanpur, and in
1982 a Doctorate in Physics from Stony Brook University. After postdoctoral work at Fermilab and the Stanford Linear Accelerator Center, Stanford University, he returned to India to pursue research in theoretical physics, first at the Tata Institute for Fundamental Research and since 1995 at the Harish-Chandra Research Institute.

Sen is recognized as one of the leading theoretical physicists worldwide. His groundbreaking contributions include developing the concept of electromagnetic duality in quantum field theory and string theory, which led to the contemporary unification of all string theories, his work on unstable configurations in string theory ("Sen's Conjectures" on tachyon condensation), and many more. For this work Sen was an inaugural winner of the Breakthrough Prize in Fundamental Physics by the Milner Foundation and has been awarded the Dirac Medal by the International Center for Theoretical Physics. He is a Fellow of the Royal Society of London.

Run Run Shaw Lectures
The Sir Run Run Shaw lectures were established by Einstein Professor of Physics C.N. Yang in 1985 for the Stony Brook University community with a generous donation from Sir Run Run Shaw (1907-2014). Executive Chairman of Television Broadcasts Limited in Hong Kong for many years, Mr. Shaw also founded two charities, The Sir Run Run Shaw Charitable Trust and The Shaw Foundation Hong Kong, both dedicated to the promotion of education, scientific and technological research, medical and welfare services, and culture and the arts. He was also the founder of the annual international Shaw Prize, which since 2004 has consisted of awards recognizing distinguished breakthroughs in Astronomy, Life Science and Medicine, and Mathematical Sciences.