

ICTP-SAIFR/IFT-UNESP PHYSICS DISCUSSIONS



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QUANTUM FIELD THEORY AND BEYOND

In this lecture, Prof. Seiberg will review the status of Quantum Field Theory (QFT) and present it as “the language of physics”. Using examples from string theory and condensed matter physics, he will motivate the fact that the standard framework of QFT should be extended. As specific examples, he will review the phenomena of fractons, which do not seem to fit the standard framework of continuum QFT. We will then present recent attempts to incorporate fractons in a slightly generalized version of quantum field theory.

NATHAN SEIBERG is a theoretical physicist who works on string theory. He is currently a professor at the Institute for Advanced Study in Princeton, USA. He was recipient of a 1996 MacArthur Fellowship, the 1998 Dannie Heineman Prize for Mathematical Physics, the 2012 inaugural Fundamental Physics Prize and the 2016 ICTP Dirac Medal.

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