

# Download Cosmic Strings And Other Topological Defects

Cosmic strings are hypothetical 1-dimensional topological defects which may have formed during a symmetry breaking phase transition in the early universe when the topology of the vacuum manifold associated to this symmetry breaking was not simply connected. It is expected that at least one string per Hubble volume is formed. Their existence was first contemplated by the theoretical physicist ... Time Ordered Data - The Planck detectors were designed to detect microwaves at 9 frequency bands (Figure 01a6) from the radio to far-infrared ( $\sim 1 - 0.03$  cm) while the expected CMB is at the range of ( $\sim 0.6 - 0.06$  cm). The wider coverage was designed to collect more information for the removal of noise from other astronomical objects. See "Planck Instruments".

x Contents 3.7 Strings in curved spacetime 108 Exercises 118 4 The string spectrum 121 4.1 Old covariant quantization 121 4.2 BRST quantization 126 4.3 BRST quantization of the string 131 1. Introduction. Particles with kinetic energies clearly above conventional thermal energies, i.e. with  $E_{\text{kin}} > 1$  eV, exist in nature due to cosmic radiation and radiation decay, but are nowadays produced in a wide range of man-made devices for basic research and practical applications. For instance, the great accelerators at CERN and other particle physics laboratories in the world attempt to ...