This volume collects the papers presented at the European Conference on Spatial Information Theory (COSIT '93) held on the island of Elba, Italy, in September 1993. Spatial information theory includes disciplinary topics and interdisciplinary issues dealing with the conceptualization and formalization of large-scale (geographic) space. It contributes towards a consistent theoretical basis for Geographic Information Systems (GIS). Geographic information systems are widely used in administration, planning, and science in many different countries, and for a wide variety of applications. Research results which relevant for GIS are distributed between many disciplines and contacts between researchers have been limited. At the same time, the development of GIS has been hindered by the lack of a sound theoretical base. This conference was intended to help remedies these problems.