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Autore	Duan Baoyan
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Nota di contenuto	Introduction -- Space Service Environment -- Cable-net Design and Analysis of Cable-truss Structure -- Analysis and Control of Flexible Multibody Deployment Process -- Electrical Properties Analysis and Equivalent of Mesh Reflector Antenna -- Surface Precision Measurement and Adjustment of Cable-truss Structure -- Deployment Reliability Analysis of Cable-truss Antenna -- Development and Experiment of Prototype Antenna -- Integrated Design Software Platform -- Space Deployable Antenna Synthetic Design Software -- Electrostatic Forming Membrane Reflector Antenna. .
Sommario/riassunto	This book discusses the innovative design, cable-net design and analysis, control, deployment, development and applications of large space-deployable antennas. Drawing on the authors' own work in this field, it describes and analyzes various typical deployable antennas, membrane antennas and super-large space-assembled antennas, while chiefly focusing on mesh antennas due to their wide range of applications. It also investigates forming–finding design and the analysis of cable-truss structures for high-precision reflector antennas,

as well as deployment process control and deployment reliability based on flexible multibody dynamic analysis. The book covers not only mechanical structure performance, but also electromagnetic performance realization and stability. Lastly, it proposes an electrical equivalent method for mesh reflector antennas and a coupling model for the structural displacement field and electrostatic field. Given the nature of its content, the book is intended for researchers, graduate students and engineers in the field of space antennas.