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Sommario/riassunto	This book comes out of a study prepared for the Space Technology and System Development Commission of the International Academy of Astronautics, and gives an expert, straightforward, and complete outlook on the uses of nuclear energy applied to space missions. Starting from fundamental physics, Chapter 1 explains the advantages of nuclear energy and explores the performance limits of nuclear propulsion in terms of specific impulse, thrust, power, and mass.

Following chapters discuss the tremendous accomplishments of the past and moves into more current technology. High-power electric propulsion of all types is extensively covered. These chapters shows how nuclear power can be engineered into a propulsion system now, not in ten or twenty years. Final chapters deal with the legislative and safety issues connected with the use of nuclear power on spacecraft according to UN treaty for Outer Space¿issues such as practical designs of space- or ground-based nuclear reactors. Finally an appendix gives accurate and up to date information on the effects of radiation on human health and what is to be expected from the use of nuclear power in space. An account of the Chernobyl accident is included.