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Sommario/riassunto	This book provides a systematic and comprehensive introduction to the neutronics of advanced nuclear systems, covering all key aspects, from the fundamental theories and methodologies to a wide range of advanced nuclear system designs and experiments. It is the first-ever book focusing on the neutronics of advanced nuclear systems in the world. Compared with traditional nuclear systems, advanced nuclear systems are characterized by more complex geometry and nuclear

physics, and pose new challenges in terms of neutronics. Based on the achievements and experiences of the author and his team over the past few decades, the book focuses on the neutronics characteristics of advanced nuclear systems and introduces novel neutron transport methodologies for complex systems, high-fidelity calculation software for nuclear design and safety evaluation, and high-intensity neutron source and technologies for neutronics experiments. At the same time, it describes the development of various neutronics designs for advanced nuclear systems, including neutronics design for ITER, CLEAR and FDS series reactors. The book not only summarizes the progress and achievements of the author’s research work, but also highlights the latest advances and investigates the forefront of the field and the road ahead.