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Titolo	Acoustic Radiation Force : Principles and Application in Medical Ultrasound / / by Xiaozhou Liu, Hairong Zheng
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Nota di contenuto	Chapter 1: Acoustic Radiation Force on Spherical Particles by Gaussian Traveling Waves Based on Ray Acoustics -- Chapter 2: Acoustic Radiation Force on Spherical Particles by Spherically Focused Ultrasound Based on Ray Acoustics -- Chapter 3: Acoustic Radiation Force on Spherical Particles by Plane Waves and Gaussian Traveling Waves Based on Scattering Acoustics -- Chapter 4: Acoustic Radiation Force on Spherical Particles by Gaussian Standing Waves Based on Scattering Acoustics -- Chapter 5: Acoustic Radiation Force on Multilayer Spherical Particles by Gaussian Traveling Waves Based on Scattering Acoustics -- Chapter 6: Acoustic Radiation Force of Other Sound Sources -- Chapter 7: The Influence of Boundaries on Acoustic Radiation Force -- Chapter 8: Acoustic Radiation Force Between Multiple Particles -- Chapter 9: Medical Applications of Acoustic Radiation Force.
Sommario/riassunto	This book provides a comprehensive overview of the acoustic radiation force on spherical particles. It explores the force exerted by Gaussian traveling waves and spherically focused ultrasound using the ray

acoustics method. The book also discusses the force generated by plane waves and Gaussian traveling waves, using the acoustic scattering method. Additionally, it examines the effects of Gaussian standing waves and multi-layered spherical particles. Beyond these core topics, the book covers the acoustic radiation force from other sound sources. These include beams produced by hollow focused transducers and annular piston transducers, as well as zero-order quasi-Bessel Gaussian beams and Airy-Gauss beams. It also explains how boundaries impact the acoustic radiation force and the interactions between multiple particles. Finally, the book highlights the medical applications of acoustic radiation force. By covering these diverse aspects, the book inspires more in-depth and comprehensive research into using acoustic radiation force to manipulate particles. The book is suitable for upper undergraduate students and graduate students in acoustics, as well as researchers and professionals engaged in the study of ultrasound and medical imaging.