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Nota di contenuto	1. Historical of 3D Fetal Echocardiography -- 2. How to obtain fetal heart standard views using 3D ultrasound -- 3. Accuracy of 3D Ultrasound in the Prenatal Diagnosis of Congenital Heart Diseases -- 4. 3D ultrasound of the fetal heart using color Doppler, inversion mode, B-flow, glass body mode and tomographic ultrasound imaging -- 5. Fetal Conotruncal Anomalies -- 6. 3D Septal Defects -- 7. 3D Ultrasound in Systemic and Pulmonary Venous Anomalies -- 8. 3D Ultrasound of Right Heart Anomalies -- 9. 3D ultrasound of left heart anomalies -- 10. 3D Univentricular Atrioventricular Connections -- 11. 3D ultrasound in aortic arch anomalies -- 12. 3D ultrasound of the fetal heart in the first trimester -- 13. 3D ultrasound in the assessment of fetal heart function and functional anomalies -- 14. Applications of Magnetic Resonance Imaging in the Fetal Heart -- 15. 3D reconstruction models and virtual navigation of the fetal heart -- 16. 3D ultrasound of the fetal heart using HDlive and Silhouette rendering modes. -- 17. Fetal Intelligent Navigation Echocardiography (FINE) -- 18. 3D Ultrasound speckle tracking -- 19. 3D ultrasound of fetal heart using MATRIX probe -- 20. New applications and perspectives in the

assessment of fetal heart by 3D ultrasound.

#### Sommario/riassunto

This book features the most recent advances in 3D ultrasound of the fetal heart, with an emphasis on practical applications, including both technical and clinical aspects. It presents a detailed description of how to obtain standard views using 3D ultrasound and discusses their accuracy in diagnosis of congenital heart diseases. It also covers such topics as the use of Color Doppler, Inversion Mode, B Flow, Glass Body, and Tomographic Ultrasound Imaging for 3D ultrasound scans, as well as STIC with HDlive and HDlive silhouette and their application, especially in conotruncal anomalies and septal defects. The use of 3D ultrasound in venous connection anomalies and right-sided heart anomalies are also demonstrated in detail. An entire chapter is devoted to applications of 3D ultrasound during the first trimester, including assessment of fetal heart function and functional anomalies. New applications and perspectives are also addressed. With contributions from leading experts in the field, *3D Ultrasound of the Fetal Heart* is a must-read for medical professionals, researchers, and students seeking to master the intricacies of three-dimensional ultrasound for fetal heart assessment. It bridges the gap between foundational knowledge and cutting-edge applications, ensuring a comprehensive and up-to-date understanding of this transformative imaging technique.