



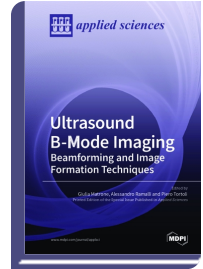
Special Issue Reprint

Ultrasound B-mode Imaging: Beamforming and Image Formation Techniques

www.mdpi.com/books/reprint/1605

Edited by
Giulia Matrone
Alessandro Ramalli
Piero Tortoli

ISBN 978-3-03921-199-9 (Softback)
ISBN 978-3-03921-200-2 (PDF)



Ultrasound medical imaging stands out among the other diagnostic imaging modalities for its patient-friendliness, high temporal resolution, low cost, and absence of ionizing radiation. On the other hand, it may still suffer from limited detail level, low signal-to-noise ratio, and narrow field-of-view. In the last decade, new beamforming and image reconstruction techniques have emerged which aim at improving resolution, contrast, and clutter suppression, especially in difficult-to-image patients. Nevertheless, achieving a higher image quality is of the utmost importance in diagnostic ultrasound medical imaging, and further developments are still indispensable. From this point of view, a crucial role can be played by novel beamforming techniques as well as by non-conventional image formation techniques (e.g., advanced transmission strategies, and compounding, coded, and harmonic imaging). This Special Issue includes novel contributions on both ultrasound beamforming and image formation techniques, particularly addressed at improving B-mode image quality and related diagnostic content. This indeed represents a hot topic in the ultrasound imaging community, and further active research in this field is expected, where many challenges still persist.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/1605

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.