The first article on X-ray examinations and breast cancer was published by A. Salomon, a surgeon at Charité university hospital in Berlin, nearly a hundred years ago. Although mammography has come a long way since then, there is an ongoing debate about its limitations. A major issue is that mammography alone does not allow reliable detection of breast cancer, especially in women with dense glandular tissue.

Full-field digital mammography – first introduced almost exactly 10 years ago – not only significantly facilitates different aspects of the workflow in mammography such as image viewing, communication, and storage, but also promises to improve image quality by enhancing contrast in dense areas of the breast.

A thorough understanding of the capabilities of this new technology is important for its users and their clinical partners alike. This book discusses the physical and technical concept of digital mammography along with clinical aspects such as differences between film-screen and digital mammography in visibility and appearance of mammographic findings. Digital mammography is a rapidly evolving imaging modality including novel and emerging mammographic techniques such as contrast-enhanced digital mammography and digital breast tomosynthesis.

Many renowned international experts in the field of digital mammography – both physicists and physicians – have contributed to this book. We believe that this mixture will provide a deeper insight into digital mammography and its current role.

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