# Artificial Intelligence in Breast Cancer Screening

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Deadline for manuscript
submissions:
**closed (31 October 2023)**

## Message from the Guest Editors

Most developed healthcare systems have implemented breast cancer screening programs, initially using analog screen-film-based mammography systems and, over the last 20 years, transitioning to the use of fully digital systems (digital mammography and digital breast tomosynthesis). Much of the effort to improve breast cancer screening outcomes has focused on intensifying screening, e.g., double-reading instead of single-reading and more frequent or supplemental screening (with breast ultrasound or MRI), which entail increased resources and often come at a cost of higher false-positive rates. Furthermore, personalized breast cancer screening regimens tailored to an individual's breast cancer risk are increasingly being advocated. The artificial intelligence (AI) revolution in computational imaging, driven by radiomic machine learning and more recently by deep learning, has also pervaded this complex landscape of breast cancer screening, including AI models for breast density evaluation, breast cancer risk assessment, breast cancer detection and prognosis, as well as enhancing efficiency in breast cancer care.

Special Issue