

## Research projects to choose from:

1. [Towards standardized quality control for artificial intelligence systems in critical care](#) [B]
2. [Machine learning and uncertainty quantification for bioelectromagnetic inverse solutions and signal separation methods](#) [B]
3. [Advancing the theory and practice of machine learning model explanations in biomedicine](#) [B]
4. [Invertible neural networks for resolving the hemodynamic inverse problem](#) [B]
5. [Robust machine learning-based quantitative magnetic resonance imaging](#) [B]
6. [Active learning using Fisher information](#) [B]
7. [Uncertainty in deep learning versus conventional statistics](#) [B]
8. [Artificial intelligence and metabolite markers in diagnosis and prognosis of Parkinson's disease](#) [BS]
9. [Artificial intelligence-based image enhancement for reduced radiation exposure in computed tomography imaging](#) [BS]
10. [Deep learning-based dosimetry in medical x-ray imaging](#) [BS]
11. [Uncertainty of artificial intelligence-based dose prediction compared to Monte Carlo methods](#) [B]
12. [Incorporation of spatial regularization and uncertainty estimations into magnetic-resonance parametric mapping](#) [B]
13. [Accelerating radiation transport simulations in radiation medicine by machine learning](#) [B]