

The quantitative performance and optimal regularization parameter in BSREM reconstructions of clinical 68Ga-PSMA PET/MR

Tuesday, 22 May 2018 16:15 (1h 30m)

In contrast to ordered subset expectation maximization (OSEM), block sequential regularized expectation maximization (BSREM) PET reconstruction algorithms can run until full convergence while controlling image quality and noise. Recent studies with BSREM and 18F-FDG PET reported higher signal-to-noise ratios and higher standardized uptake values (SUV). In this study we investigate the optimal regularization parameter for clinical 68Ga-PSMA PET/MR reconstructions in the pelvic region applying TOF BSREM in comparison to TOF OSEM.

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Session Classification: Session 8 - Poster Session I