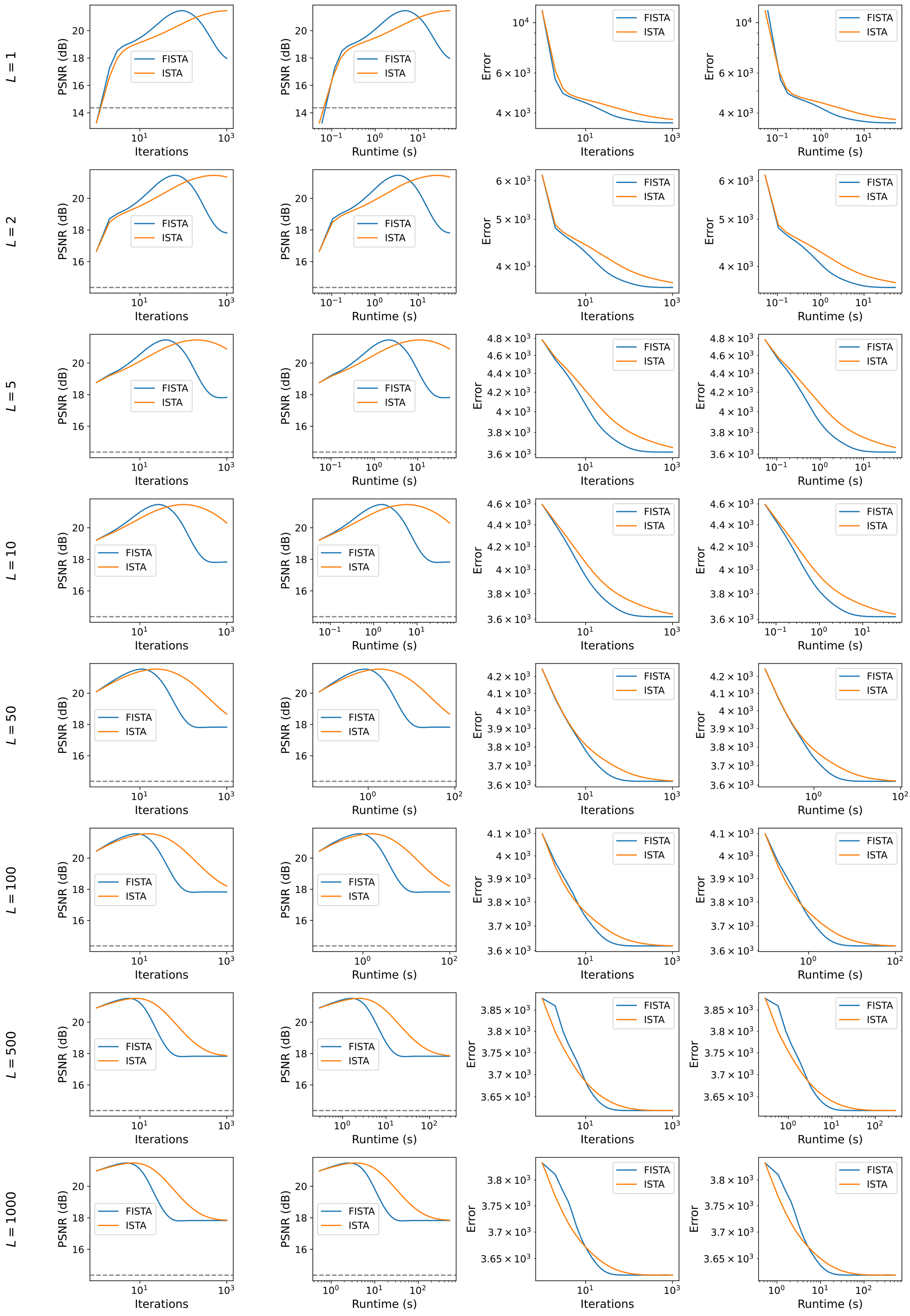$\lambda^* = 1.00 \times 10^{-1}$