ABSTRACT

Two-weight criteria of various type for one-sided maximal functions and one-sided potentials are established in variable exponent Lebesgue spaces. Among other results we derive the Hardy–Littlewood, Fefferman–Stein and trace inequalities in these spaces. Weighted estimates for Hardy-type, maximal, potential and singular operators defined by means of a quasi-metric and a doubling measure are derived in $L^{p(x)}$ spaces. In some cases examples of weights guaranteeing the appropriate weighted estimates are given.