CLASSES OF WEIGHTS RELATED TO SCHRÖDINGER OPERATORS

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ABSTRACT. In this work we obtain boundedness on weighted Lebesgue spaces on $\mathbb{R}^d$ of the semi-group maximal function, Riesz transforms, fractional integrals and g-function associated to the Schrödinger operator $-\Delta + V$, where V satisfies a reverse Hölder inequality with exponent greater than $d/2$. We consider new classes of weights that locally behave as Muckenhoupt's weights and actually include them. The notion of locality is defined by means of the critical radius function of the potential V given in [8].