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Optimal limiting absorption principle for a Schrödinger type operator on a Lipschitz cylinder. (English summary)

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The author proves a Mourre estimate for a class of self-adjoint Schrödinger-type operators of the form $H = -\partial_i m^{ij} \partial_j + V$ on a cylinder in $\mathbf{R}^n$, where $V(x) \to 0$ and $m^{ij}(x) \to \delta^{ij}$ as $|x| \to \infty$. General results from the abstract conjugate operator method then imply spectral properties of H and the limiting absorption principle in an optimal Besov space. The same theory can be found in an essentially identical presentation in an earlier paper by D. Krejčiřík and R. Tiedra de Aldecoa [J. Phys. A **37** (2004), no. 20, 5449–5466; MR2065680 (2005f:81060)] not cited by the present author.

Reviewed by *W. O. Amrein*

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Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.