NON-RELATIVISTIC LIMIT OF GENERALIZED MIT BAG MODELS ON A STRAIGHT LINE

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In this talk, we examine the non-relativistic limit of the MIT boundary condition for the Dirac operator on the half-plane. Our approach differs from the standard treatment by introducing a c-dependent boundary condition, allowing us to recover the broader family of Schrödinger operators in the limit. Specifically, we will demonstrate that the rescaled MIT model converges in the norm resolvent sense, after subtracting the rest energy, to the Schrödinger operator with oblique transmission conditions as $c \to \infty$.

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