ON THE ORTHOGONALITY OF GENERALIZED EIGENSPACES FOR THE ORNSTEIN–UHLENBECK OPERATOR

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ABSTRACT. We discuss the orthogonality of the generalized eigenspaces of an Ornstein– Uhlenbeck operator \mathscr{L} in \mathbb{R}^N , with drift given by a real matrix B whose eigenvalues have negative real parts. We show that the generalized eigenspaces associated to \mathscr{L} may or may not be orthogonal, depending on the spectral properties of B. This is a joint work with Paolo Ciatti and Peter Sjögren.

References

V. Casarino, P. Ciatti and P. Sjögren, On the orthogonality of generalized eigenspaces for the Ornstein–Uhlenbeck operator, arXiv:2103.09698.