On Morse and Maslov indices for multidimensional elliptic problems

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Abstract.

We describe a relation between the Morse index and the Maslov index for the matrix valued Schrödinger operator on a multidimensional star-shaped domain. We pay a special attention to relations with the Dirichlet-to-Neumann and Neumann-to-Dirichlet maps, and to the weak Neumann trace operators. This is a joint work with G. Cox, C. Jones, Y. Latushkin.