



Minisymposium 15 - Operatortheorie

Variational principles for eigenvalues of the Klein–Gordon equation

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We consider eigenvalues of the Klein–Gordon equation, which can be written as a quadratic eigenvalue problem. Under certain assumptions the continuous spectrum has a gap and we can characterise eigenvalues in this gap even in the presence of complex eigenvalues. This quadratic eigenvalue problem can also be linearised in a Pontryagin space. Connections between the negative index of the Pontryagin space and the index shift in the variational principle are presented.