

MANIFOLDS OF SELF-ADJOINED OPERATORS AND THEIR EIGENVECTORS

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We consider V.I. Arnold's manifolds [1] of self-adjointed operators with fixed multiple of eigenvalues and K. Uhlenbeck's manifolds [2] of eigenvectors. Our aim is the local analysis and connection between these manifolds. We present the topological description of the spectrum perturbation problem, specifically the finite-multiple eigenvalue splitting problem. To investigation of Arnold's manifolds, we use the local diffeomorphism that introduced in [3]. To investigation of Uhlenbeck's manifolds, we use own approach and the method from [4]. In monograph [5], there is the greater part of results.

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