NEW ESTIMATES FOR THE RATE OF CONVERGENCE OF THE METHOD OF SUBSPACE CORRECTIONS

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Abstract. We discuss estimates for the rate of convergence of the method of successive subspace corrections in terms of condition number estimate for the method of parallel subspace corrections. We provide upper bounds and in special case a lower bound for preconditioners defined via the method of successive subspace corrections.

Key words. the method of subspace corrections, preconditioning convergence rate of linear iterative method.

AMS subject classifications. 65F10, 65J05, 65N12, 65N55

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