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Reviewer: Miloslav Znojil
Reviewer number: 013388
Address:
Theory Group, NPI AV ČR, 250 68 Řež, Czech Republic
Author: D. S. Kamenetskii
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Review text: Often, a homogeneous difference equation (boundary value problem) is encountered in practice as a discretized version of a partial differential equation: Typically, people use regular lattices with grids numbered by integers and employ, say, the discrete analogue of the Cauchy integral (ref. [8] is quoted as a review) within the method of internal boundary conditions (reference [12] offers more details). Without an immediate attention to numerical applications the author adopts a more general formulation of the problem and reviews shortly the state of the art (incl. the appropriate concise notation) in part I of his text.

A core of his message lies in the introduction of certain reduced difference potentials in a novel approach to the parametrization of all the solutions of a homogeneous difference boundary-value problem. In a way employing a concept of boundary on the lattice of grid points he works with the idea of complementarity of certain boundary operators and describes all possibilities of such a parametrization. Thorough attention is paid to the role of suitable projectors in relation to the so called independent internal boundary conditions, without an explict use of the Riabenkii's minimal trace. A few more practically oriented comments (concerning some norms and their estimates) are added in the conclusions.