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Review text:

Three-page note inspired by the well known relationship between the continued fractions S(z) and the resolvents f(z). This is reviewed on the first page, with the Achiezer's classical book quoted as ref. [1]. The key idea of the note lies in the use of the assignment of certain generalized S(z) and f(z) with p ¿ 1 components to a modified Jacobi-like matrix. This type of vectorization is reviewed briefly on the second page. The core of the message (the third page) are two theorems (with outlined proofs) giving the sufficient and necessary p ¿ 1 analogues of the Stieltjes convergence criteria.

Numerical experiments are mentioned showing that the second theorem cannot be probably as strong as its non-vectorial p=1 predecessor. The key concept, the vectorization itself is taken from a parallel paper [2] (by the first author et al) and uses the component-wise vector multiplication. The necessary vectorial (quasi-)inversion is already fairly artificial (NB: in this sense, the vectorizations is definitely different from the more elementary ones, cf., e.g., J. Phys. A 16 (1983) 3313) and more or less uniquely determined by the author's specific choice of the operators in question (the difference ones, of the (p+1)-st order, represented by a two-diagonal Hessenberg matrix). An interesting, inspiring paper.