Review of "Stieltjes Functions and Spectral Analysis in the Physics of Sea Ice"

This is a highly mathematical article about the exploitation of Stieltjes functions for the analysis of the physical properties of sea ice as an example of generic composite media. The high level of mathematics makes it difficult to follow some of the arguments. I therefore suggest that verbal explanations be attached to some of the more esoteric mathematical developments. For example, when the function F(s) is first introduced in Eq. (5), a simple explanation should be given as to how this function is obtained, as is done in Bergman (1978). Similar explanations should be attached to Theorem 1 and Theorem 2.

Many publications are cited in an attempt to outline the history of the topic of the current article. However, some citations are missing:

1. "Scattering electromagnetic eigenstates of a two-constituent composite and their exploitation for calculating a physical field", Bergman, Chen, and Farhi, Physical Review A 102, 063508 (2020).
2. "Eigenstates of Maxwell's equations in multi-constituent microstructures", Bergman, Physical Review A 105, 062213 (2022).

In these articles the eigenstates of Maxwell's equations are introduced for two-constituent and multi-constituent microstructures and used to calculate the local physical field.

In Line 94 Bergman (1982) should be cited.

In Lines 189 and 442, where elastic properties are mentioned, the following articles should be cited:

1. Y. Kantor and D. J. Bergman, Elastostatic resonances: a new approach to the calculation of the effective elastic constants of composites, J. Mech. and Phys. of Solids 30, 355-376 (1982).
2. Y. Kantor and D. J. Bergman, Improved Rigorous Bounds on the Effective Elastic Moduli of a Composite Material, J. Mech. and Phys. Of Solids 32, 41-62 (1984).

In these articles the Stieltjes method was first applied to elastic properties of microstructures.