Referee report on the paper
"Form factor of local operators in the generalized algebraic Bethe ansatz"

by G. Kulkarni and N.A. Slavnov

This paper is a continuation of research performed by the authors in the papers [1,15] and by the second author in [16] according to the reference list of the paper. It is devoted to the investigation of XYZ spin chain in the framework of the generalized algebraic Bethe ansatz. Form factors of local operators are studied in the limit of of free fermions, when this model becomes XY spin chain.

The paper is rather technical and will require certain work from the reader to perform all missed calculations. Although the authors do not set themselves the goal to obtain new results, the importance of this paper is a demonstration of the fundamental applicability of the generalized Bethe ansatz to the calculation of the form factors. In this respect, the paper meets expectations and criteria for the SciPost Physics Journal and I would like to recommend the paper "Form factor of local operators in the generalized algebraic Bethe ansatz" by G. Kulkarni and N.A. Slavnov for publication in SciPost Physics Journal.

The only remark which I would like to mention is a possible misunderstanding of the reader at the beginning of the section 2.2.1. The authors explicitly mentioned after formulas (2.7) that they are focusing in the paper on the case of XY model, but I think that it is reasonable to mention this again somewhere around the Bethe equations (2.13), which take in this case very specific and decoupled form.