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## **Bethe vectors for composite models with $gl(2|1)$ and $gl(1|2)$ supersymmetry**

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**Abstract:** Bethe vectors for  $gl(2|1)$  and  $gl(1|2)$ -invariant models were calculated recently [1]. It allowed to study form factors of monodromy matrix elements. Based on this, correlation functions in the mentioned models can be investigated. The next important step is to find expressions for correlation functions of local operators. For models, where the solution of the quantum inverse scattering problem is not known, there is the composite model as a powerful tool. We will present Bethe vectors for the composite models with  $gl(2|1)$  and  $gl(1|2)$  supersymmetry and describe a way how to obtain them [2]. This is the first step in a program leading to the calculation of correlation functions of local operators for models with such supersymmetry.

### **References:**

- [1] S. Z. Pakuliak, E. Ragoucy, and N. A. Slavnov. Bethe vectors for models based on the super-Yangian  $Y(gl(m|n))$ . arXiv:1604.02311 [math-ph]
- [2] J. Fuksa. Bethe vectors for composite generalised models with  $gl(2|1)$  and  $gl(1|2)$  supersymmetry. To be submitted for publication soon.