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**sasha tsymbaliuk\*** ([otsymbal@purdue.edu](mailto:otsymbal@purdue.edu)), 150 N. University Street, Office 620, West Lafayette, IN 47907. *Transfer matrices via BGG-type resolutions, and shifted Yangians.*

We obtain BGG-type formulas for transfer matrices of irreducible finite-dimensional representations of the classical Lie algebras  $\mathfrak{g}$ , whose highest weight is a multiple of a fundamental one and which can be lifted to the representations over the Yangian  $Y(\mathfrak{g})$ . Our approach is crucially based on the new BGG-type resolutions of the finite-dimensional  $\mathfrak{g}$ -modules, which naturally arise geometrically as the restricted duals of the Cousin complexes. We further factorise the corresponding infinite-dimensional transfer matrices into the products of two Baxter  $Q$ -operators, arising from the degenerate Lax matrices, which in turn arise from the antidominantly shifted Yangians and their RTT realization. Based on the joint works with R.Frassek, I.Karpov, and V.Pestun. (Received January 23, 2022)