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*Title:*

**“Anisotropic Landau-Lifshitz sigma models from q-deformed  $AdS_5 \times S^5$  superstrings”**

*Abstract:*

We consider bosonic subsectors of the q-deformed  $AdS_5 \times S^5$  superstring action and study the classical integrable structure of anisotropic Landau-Lifshitz sigma models (LLSMs) derived by taking fast-moving limits. The subsectors are 1) deformed  $AdS_3 \times S^1$  and 2)  $R \times$  deformed  $S^3$ . The cases 1) and 2) lead to a time-like warped  $SL(2)$  LLSM and a squashed  $S^3$  LLSM, respectively. For each of them, we construct an infinite number of non-local conserved charges and show a quantum affine algebra at the classical level. Furthermore, a pp-wave like limit is applied for the case 1). The resulting system is a null-like warped  $SL(2)$  LLSM and exhibits a couple of Yangians through non-local gauge transformations associated with Jordanian twists.