

VECTOR BUNDLES OF CONFORMAL BLOCKS WITH $\mathfrak{sp}_{2\ell}$ AT LEVEL ONE

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AMS ABSTRACT

Given a simple Lie algebra \mathfrak{g} , a positive integer ℓ , and an n -tuple $\vec{\lambda}$ of dominant integral weights for \mathfrak{g} at level ℓ , one can define a vector bundle on $\overline{M}_{g,n}$ known as a vector bundle of conformal blocks. The data defining these vector bundles provide potentially an infinite number of elements in the nef cone of $\overline{M}_{0,n}$ to analyze; result relating divisors associated to different data is significant in understanding these objects. In this talk, we will relate the divisors of conformal blocks with differing Lie data. Explicitly, we give necessary and sufficient conditions on when the divisors defined with \mathfrak{sl}_2 and \mathfrak{sp}_{2r} are equivalent. We also explore all bundles defined with \mathfrak{sp}_{2r} at level one; we show these divisors become equivalent when the Lie rank is taken large enough.