



# Genus-zero $r$ -spin theory

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## ABSTRACT

We provide an explicit formula for all primary genus-zero  $r$ -spin invariants. Our formula is piecewise polynomial in the monodromies at each marked point and in  $r$ . To deduce the structure of these invariants, we use a tropical realization of the corresponding cohomological field theories. We observe that the collection of all Witten–Dijkgraaf–Verlinde–Verlinde (WDVV) relations is equivalent to the relations deduced from the fact that genus-zero tropical cohomological field theory cycles are balanced.