

Spinor Field Realizations of Non-critical  $W_{2,4}$  String Based on Linear  $W_{1,2,4}$  Algebra

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Abstract: In this paper, we investigate the spinor field realizations of the  $W_{2,4}$  algebra, making use of the fact that the  $W_{2,4}$  algebra can be linearized through the addition of a spin-1 current. And then the nilpotent BRST charges of the spinor non-critical  $W_{2,4}$  string were built with these realizations.

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Key words: W string, BRST charge, spinor realization

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