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# Supersymmetric non-abelian D-brane equations from open pure spinor superstring

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We have examined the BRS invariance of the open pure spinor superstring to derive equations of motion for a supersymmetric D$p$-brane, which should be induced from the DBI action and the Wess-Zumino action. These equations are consistent with the dimensional reduction of equations for a supersymmetric D9-brane obtained by Berkovits and Pershin. They also analyzed non-abelian backgrounds up to quadratic order in "boundary fermions", which are world-volume fermions on D-branes and represent the Chan-Paton factors for open strings. In this talk, we will extend previous results to supersymmetric non-abelian D-brane equations including all boundary fermions.

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