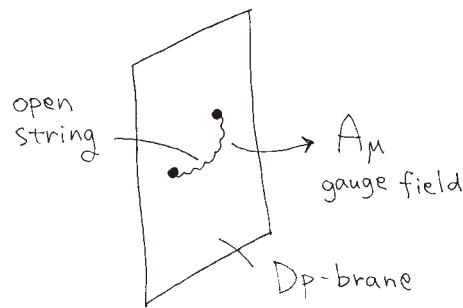


D-brane

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A Dp -brane is defined as a $(p+1)$ dimensional object on which open strings can end. D-branes played a crucial role in the second revolution of string theory started in mid 90's. In particular, the relation between string theory and gauge theory has been completely renewed due to the fact that the low energy effective theory of the open strings on the Dp -brane is a $(p+1)$ dimensional gauge theory.



$$S_{Dp} = -T_{Dp} \int d^{p+1}x e^{-\phi} \sqrt{-\det(g_{\mu\nu} + B_{\mu\nu} + 2\pi\alpha' F_{\mu\nu})}$$