Schwinger-time approach towards the complete $\alpha' corrected D3-brane action$

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Abstract

We develop an M-theoretic Schwinger formalism for protected higher-derivative couplings of bulk Type IIB fields to D3-branes and derive the complete purely bosonic effective action at order $(\alpha')^2$ $for bulk states scattering of the brane. Starting from the one-loop propagation of the eleven-dimensi

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