

T-dualization of a weakly curved background

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We discuss the T-dualization procedure which enables the T-dualization of the nonisometry directions. The procedure is a generalization of a Buscher T-dualization procedure. We developed it for a closed bosonic string moving in a weakly curved background of the first order, composed of a constant metric and a linearly coordinate dependent Kalb-Ramond field with an infinitesimal field strength and adapt it for a weakly curved background of the second order, composed of the same Kalb-Ramond field and a coordinate dependent metric of the second order. The application of the procedure enables the investigation of the connection between the geometrical properties of the T-dual spaces. We use the procedure to investigate the T-duals of an open bosonic string as well.