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THE COADJOINT REPRESENTATION OF THE SUPER-VIRASORO ALGEBRA AND SUPERGRAVITONS

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We describe the physical actions that correspond to the interaction of the Super Virasoro algebra with supergravitons. These new field theories introduce a superfield that corresponds to dual elements of the super Virasoro algebra. Such elements already appear as background fields in the geometric action associated with two dimensional Polyakov supergravity. The actions describe a new symplectic structure that is transverse to the coadjoint orbits.