Orthosymplectic supersymmetries of modules of differential operators

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Abstract Let $\mathfrak{F}_\lambda$ be the space of tensor densities of degree λ on the supercircle $S^{1|1}$. We consider the space $\mathfrak{D}^k_{\lambda,\mu}$ of k-th order linear differential operators from $\mathfrak{F}_\lambda$ to $\mathfrak{F}_\mu$ as $\mathfrak{osp}(1|2)$-module and we determine the superalgebra $\mathfrak{I}^k_{\lambda,\mu}$ of linear maps on $\mathfrak{D}^k_{\lambda,\mu}$ commuting with the $\mathfrak{osp}(1|2)$-action.