The Extended Future Tube Conjecture for SO(1, n)

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Abstract. Let C be the open upper light cone in $\mathbb{R}^{1+n}$ with respect to the Lorentz product. The connected linear Lorentz group $SO_{\mathbb{R}}(1, n)^0$ acts on C and therefore diagonally on the N-fold product T^N where $T = \mathbb{R}^{1+n} + iC \subset \mathbb{C}^{1+n}$. We prove that the extended future tube $SO_{\mathbb{C}}(1, n) \cdot T^N$ is a domain of holomorphy.