

$$Z(t-i(\sigma-\frac{1}{2}))=e^{i\vartheta(t-i(\sigma-\frac{1}{2}))}\mathcal{R}(\sigma+it)+e^{-i\vartheta(t-i(\sigma-\frac{1}{2}))}\overline{\mathcal{R}}(1-\sigma+it)$$