

**Title:** Symmetries of the CR sub-Laplacian

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**Abstract:** The aim of this work is to characterize the vector space of symmetry operators of the CR sub-Laplacian. To do this, we define a CR structure on some distinguished submanifold of  $\mathbb{C}^{n+1}$  (it is in fact the big cell in the CR sphere) and write down the CR sub-Laplacian on it. We also define the symmetries of the CR sub-Laplacian in general and using the ambient construction, which we introduce in the sequel, we construct all of them.

**Keywords:** CR geometry, CR sub-Laplacian, symmetries of differential operator.