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# Geometric quantization on CR manifolds

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## Abstract

Let  $X$  be a compact connected orientable CR manifold of dimension greater than five with the action of a connected compact Lie group  $G$ . Assuming that the Levi form of  $X$  is positive definite near the inverse image  $Y$  of 0 by the momentum map and that the tangential Cauchy-Riemann operator has closed range on the reduction  $Y/G$ , we prove that there is a canonical Fredholm operator between the space of global  $G$ -invariant  $L^2$  CR functions on  $X$  and the space of global  $L^2$  CR functions on the reduction  $Y/G$ . This is a joint work with Xiaonan Ma and George Marinescu.