

## NORDAN 2016: Several Complex Variables

On vanishing results for  $L^2$ -Dolbeault cohomology on  
pseudoconvex complex spaces

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Using Grauert's bumping method, it was proven that  $L^2$ -Dolbeault cohomology groups of a strictly pseudoconvex bounded domain in a complex manifold are isomorphic to Dolbeault cohomology groups with respect to locally square integrable forms. We generalize this to strictly pseudoconvex domains in complex spaces. For this, we prove vanishing theorems for  $L^2$ -Dolbeault cohomology groups on pseudoconvex domains of analytic sets in  $\mathbb{C}^n$ , which generalize results by T. Ohsawa, W. Pardon and M. Śtern.