

# $\bar{\partial}$ and the Dirac operator

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We will establish a connection between the Dirac operator in  $\mathbb{R}^2$  and  $\bar{\partial}$  acting in a certain weighted space on  $\mathbb{C}$  showing that resolvent properties of the Dirac operator are closely related to properties of the solution operator to  $\bar{\partial}$  and certain weighted Sobolev imbeddings. From this we derive a non-compactness result for the resolvent of the Dirac operator.