1056-46-1291 **Sonia Sharma*** (sonia@math.uh.edu), Department of Mathematics, University of Houston, Houston, TX 77204. *Operator spaces with an ideal structure.*

The notion of an ideal is an essential algebraic notion in ring theory and algebra. The theory of ideals has been generalized to the non-algebraic setting of Banach spaces in more than one way. One of the more successful and vastly studied notion of ideals is that of "M-ideals". A particular class of M-ideals that has been extensively studied in the Banach space literature, are the spaces that are M-ideals in their second dual X^{**}. Recall, every Banach space X can be thought of as a subspace of its second dual, X^{**}, via a canonical embedding $X \hookrightarrow X^{**}$. We have developed a non-commutative generalization of the above class, namely the theory of operator spaces which are 'ideals' in their second dual. We will talk about some of the interesting features and examples of these spaces. (Received September 21, 2009)