The Category of Generalized Complex Structures(Lie Algebroids)

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Abstract. Generalized complex structures were introduced by N. Hitchin. They naturally contain the category of complex structures and that of symplectic structures. In a sense, it is a good category to discuss the mirror symmetry or some dualities. It also involves the concept of Lie algebroids which are more general than Lie groupoids. So, it has a connection to the quotient spaces or noncommutative geometry. We also discuss on the relation with the stacks and higher stacks.