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The category of Lie algebroids

The category of generalized complex structures includes those of complex structures and symplectic structures as special cases. This is helpful for understanding mirror symmetry between complex geometry and symplectic geometry. The category of Lie algebroids naturally contains the category of generalized complex structures. We describe the category of Lie algebroids in comparison with that of that Lie groupoids. We explain the (additive) K-theory, Chow ring, cohomology, and Hodge structures and describe the mirror symmetry behaviour in a more general context. We also mention the related infinite category.

REFERENCES

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