



Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali / Thesis & Dissertation / Master of Science / MS-17

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/4239>

Title:	A Study of C^* -algebras
Authors:	Dueby, Sukrit
Keywords:	C^* -algebras Study
Issue Date:	Apr-2022
Publisher:	IISER Mohali
Abstract:	C^* -algebras are modelled upon the operator algebra of bounded operators on a Hilbert space, $B(H)$. In this study we try to understand several properties of such objects which will help us explain the generalisation of certain phenomenon from linear algebra to analysis of infinite dimensional linear spaces. We understand the idea of constructing holomorphic and later continuous functional calculus. We then arrive at characterising commutative unital C^* -algebra as will be seen that such structures are isometrically isomorphic to $C(X)$, the space of all complex valued continuous functions on a compact metric space. With some more associated constructions we will be able to understand the decomposition of Normal operators on Hilbert spaces. Finally, the study of representations of C^* -algebras generated by compact operators on Hilbert spaces will yield a structure theorem for finite dimensional algebras which serve as a prototype for new C^* -algebras built by finite dimensional ones.
URI:	http://hdl.handle.net/123456789/4239
Appears in Collections:	MS-17

Files in This Item:

File	Description	Size	Format	
Yet to obtain consent.pdf		144.56 kB	Adobe PDF	View/Open

Show full item record



Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.

Theme by



Customized & Implemented by - Jivesna Tech