# Operator Algebra

Labix

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Abstract

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## 1 Algebras on Normed Spaces

### 1.1 Banach Algebras

### Definition 1.1.1: Banach Algebra

Let A be a Banach space over  $\mathbb C$ . If A is an algebra over  $\mathbb C$  in which the multiplication satisfies the inequality

$$\|xy\| \leq \|x\| \|y\|$$

then A is called a Banach algebra.