

## INTISARI

### **INTEGRAL- $M_\alpha$ FUNGSI BERNILAI DI RUANG BANACH**

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Di dalam tesis ini dibahas definisi dan karakteristik integral- $M_\alpha$  fungsi bernilai di ruang Banach pada  $[a, b]$ . Pembahasan dimulai dengan membuktikan eksistensi partisi  $\delta$ -fine  $M_\alpha$  pada  $[a, b]$ . Berdasarkan partisi tersebut, didefinisikan integral- $M_\alpha$  bernilai di ruang Banach. Selanjutnya, dibahas definisi dan karakteristik fungsi primitif- $M_\alpha$  dan diperoleh bahwa fungsi primitif- $M_\alpha$  memiliki sifat  $ACG_\alpha$ . Pada bagian akhir, dibangun teorema kekonvergenan untuk integral- $M_\alpha$  fungsi bernilai bernilai di ruang Banach.

## ABSTRACT

### THE $M_\alpha$ -INTEGRAL OF BANACH VALUED-FUNCTIONS

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In this thesis, we discuss the definition and some characteristics of the  $M_\alpha$ -integral of Banach-valued functions on  $[a, b]$ . The discussion will be started by proving the  $\delta$ -fine  $M_\alpha$  partition of  $[a, b]$ . Based on this partition, we define the  $M_\alpha$ -integral of Banach-valued functions. Furthermore, we discuss the definition and characteristics of primitive- $M_\alpha$  functions and the result is that the primitive- $M_\alpha$  functions have  $ACG_\alpha$  properties. In the last discussion, we prove the convergence theorems for  $M_\alpha$ -integral of Banach-valued functions.