



## INTISARI

### **Kekonvergenan Barisan Ganda dan Deret Ganda**

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Di dalam skripsi ini dibahas mengenai barisan ganda bilangan real  $\{a_{j,k}\}$  dan deret ganda bilangan real  $\sum \sum_{j,k} a_{j,k}$  yang konvergen, hubungan antara limit iterasi dengan barisan ganda yang konvergen, hubungan antara deret iterasi dengan deret ganda yang konvergen, dan beberapa uji kekonvergenan deret ganda. Pembahasan dimulai dengan memberikan definisi barisan ganda bilangan real dan deret ganda bilangan real yang konvergen beserta sifat-sifatnya. Pada bagian akhir, diberikan beberapa uji kekonvergenan deret ganda meliputi Uji Perbandingan, Uji Kondensasi Cauchy, Uji Limit Perbandingan, Uji Akar, dan Uji Rasio, serta Uji Dirichlet.



## ABSTRACT

### Convergence of Double Sequences and Double Series

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In this undergraduate thesis, we discuss about the convergence of double sequence of real numbers  $\{a_{j,k}\}$  and double series of real numbers  $\sum \sum_{j,k} a_{j,k}$ , the relation between the iterated limits with the convergent double sequence, the relation between the iterated series with the convergent double series, and some tests for convergence of a double series. First, we give the definition of the convergent double sequence of real numbers and the convergent double series of real numbers as well as their properties. In the last section, we give some tests for convergence of a double series including Comparison Test, Cauchy's Condensation Test, Limit Comparison Test, Root Test, and Ratio Test, and Dirichlet's Test.