南昆铁路支挡结构主动土压力分布图式

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摘要　 土压力分布是支挡工程设计的重要问题。根据南昆铁路支挡结构主动土压力实测资料，在理论模式的基础上，经修正后提出水平主动土压力分布的抛物线图式，进而推导了水平主动土压力最大值点、水平主动土压力合力及其作用点的公式。对南昆铁路支挡结构水平主动土压力分布图式进行了讨论，据此得出了南昆铁路土压力分布的简化图式。

关键词　 土力学；支档结构；主动土压力；抛物线分布；南昆铁路
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DISTRIBUTION MAP FORMS OF ACTIVE EARTH PRESSURE ON RETAINING STRUCTURES IN NANNING—KUNMING RAILWAY

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Abstract

 Distribution of earth pressure is an important problem in engineering design. According to the measured data of earth pressures on retaining structures in Nanning—Kunming railway，the amended parabola distribution map form is presented based on theoretical model. Furthermore，the formulas for calculating maximum point of earth pressure，resultant earth pressure，and its point of application，are achieved. Analysis of fitting map forms for earth pressure on above retaining structures shows that the earth pressures on retaining wall and these on soil nailing wall are identical to the Coulomb¢s active earth pressure. Accordingly，simplified map forms of earth pressure distributions in Nanning—Kunming railway are achieved.

Key words soil mechanics；retaining structure；active earth pressure；parabola distribution；Nanning—Kunming railway

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