农业工程

棱柱体明渠水面曲线的级数解法

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摘要　 根据水利工程的实际应用和所需的精度要求，结合水力学所涉及的各类不同因素及水流运动变化特点，为寻求各型水面曲线的简捷计算方法，在此引用级数的概念，研究棱柱体明渠恒定渐变流水面曲线的解，通过对已建成的十几个中小型水利工程实例和在教学实践中、结合实际工程设计进行水面曲线简化计算的研究后，认为棱柱体明渠水面曲线级数解是适宜于中小型水利工程精度要求、且计算方法简便快捷求解水面曲线解的又一种途径。

关键词　 棱柱体明渠　 水面曲线　 水力指数　 级数

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The Method on the Progressional Value of the Water Surface Line Which Lie in Prismatic Channel and the Application of it

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Abstract

 In according to the practical application in the Water conservancy engineering and precision demanded, combining with all kinds of different factors and changeable characteristics of fluid which involve in hydraulics. For finding out the simple and direct way on all kinds of curves of water, quoting the conception of progressional here, the solution of curve of prismatic channel gradual-varied steady flow are studied. After studying simplified calculation on curve of water to tens of middle and small water conservancy engineering practical examples and the use of combination in teaching and practice. It can be concluded that this progressional value satisfies the precision demand in the middle and small water conservancy engineering. The simple and direct calculation method is another way to solve the curve of water.

Key words　 prismatic channel　 curve of water　 hydraulic index　 progression

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