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高升力实验洞壁干扰修正

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WALL INTERFERENCE CORRECTION OF HIGH LIFT TEST

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摘要 研究了根据最佳点壁压和影响函数对三维模型低速高升力测力实验进行洞壁干扰修正的方法（简称壁压影响函数法,ＷＰＩＦ法）。应用它对高升力模型小风洞实验结果进行了洞壁干扰修正。修正结果与无干扰实验数据作了比较,说明该方法对高升力测力实验的修正是准确的。

关键词： 洞壁干扰 高升力 低速 压力测量

Abstract： In this paper a method is outlined to compute wall-interference in closed low speed wind tunnel for 3D high lift test using wall pressure at optimum points and the influence func-tion (WPIF method for short).The experimental results of a high lift model in small wind tun-nel are corrected by applying the WPIF method. The corrected results are compared with the wall interference-free data bf this high lift model in large wind tunnel. It is shown that the WPIF method is desirable for the correction of lift,drag and pitch moment.

Keywords： wall interference high lift low speed.pressure measurement

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