

Direction and Velocity Characteristics of Air Flow around Pantograph of Running Train

Mitsuru IKEDA Takeshi MITSUMOJI Yoshitaka YAMASHITA

Lift force acting on a pantograph of a high-speed train strongly affects current collection performance of the pantograph, but air flow conditions in the vicinity of the pantograph have been only poorly understood. Therefore, onboard measurement of the flow conditions around the pantograph by using a three-hole probe mounted on the panhead was performed. The results revealed some useful information about direction and velocity characteristics of the flow around the pantograph for design in a high-speed pantograph with suitable aerodynamic properties.