

Estimation Method of Aerodynamic Load on Equipment in Tunnel Considering the Unsteady of Pressure Variation

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When a train travels through a tunnel at high speed, large pressure variations are generated in the tunnel. Because they act on equipment inside tunnel as aerodynamic force, it is necessary to estimate their magnitude for the design of equipment. The pressure variations mainly occur during train passage and pressure wave propagation. The pressure variations during the train passage includes high frequency components whose length is shorter than that of equipment. In this paper, a estimation method taking account of the influence of high frequency components of the pressure variations on the aerodynamic force is proposed.