

Verification Method for Safety of Railway Rails Against Fatigue Failure Considering Application to Curved Tracks

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This study examines the development of a safety verification method for rail fatigue failure in curved tracks. Specifically, we estimate rail stress using an FEM model simulating both rails on railway tracks and develop a method for estimating response values. In addition, we measure rail stress generated when a vehicle travels on a curve on an operating line and analyze the effect of lateral pressure on rail stress. We compare the measured results with the estimated rail stress to verify the validity of the estimation method.