

Experimental Study on Curve Squeal Noise with a Running Train

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Curve squeal noise is one of the major railway noise sources, which need to be reduced by strong social demands. It is important to understand the generation mechanism of the squeal noise and develop mitigations for the noise. In this study, field tests in RTRI were carried out to understand the mechanism during a train running. It is found that the curve squeal noise is generated at the frequency closely related to the resonances of the wheel, and the dominant noise source is the leading wheel on the inner rail of the curved section.