

**Verification of Growth Mechanism and Evolution Process of Rail Corrugation  
by Measuring Rail Surface Roughness of Commercial Lines**

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Rail corrugation is a phenomenon, in which roughness patterns of approximately regular wavelengths are formed on the rail surface by trains running, and causes the vibration and the noise. In the previous paper, the authors have already analyzed the growth mechanism and the wavelength determination mechanism of the rail corrugation from the viewpoint of dynamics. In this paper, the characteristics of the corrugation measured in commercial lines are compared with the theoretical values. From these results, it is confirmed that the wavelengths of the corrugation well agree with the theoretical values and the each of growth factors is identified. Finally, the proposed growth mechanism and the evolution process of the rail corrugation have been verified.