

## **Improvement of Numerical Method Focusing on Micro Mechanics of Ballasted Track**

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Numerical simulation by DEM have been adopted as analysis methods for focusing on micromechanics of ballasted tracks. However, DEM simulation has issues of low quantitative accuracy because DEM models are subjected to be simplified to reduce a computational load. Therefore, DEM code was parallelized by using Open MP to decrease computing time that contribute to improve quantitative accuracy by using more precise models. Then the author validates simulation results by comparing with measured data from real railway lines.