

**Development of a Model for
Analyzing the Propagation of Transverse Cracking of Rail**

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It is important to analyze the propagation of transverse cracking accurately that causes rail failure from the view point of ensuring rail safety. Up to now, the crack propagation has been analyzed by using Finite Element Method (FEM) and so on. However in these previous methods, the subdivision of meshes has to be repeated every time when the crack to be analyzed after its new propagation. Then, we have proposed a method of crack propagation analysis by using Boundary Node Method (BNM). In this paper, we have presented how BNM program for 3-D elastic analysis has been developed and the result of the analyses of transverse cracking propagation performed by this program.