

## **Recent Research and Development in Railway Dynamics**

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Railway Dynamics is the research field for finding out technical solutions for dynamic problems caused by the characteristics of the railway system. RTRI has been tackling many problems in the field of the railway dynamics. To accelerate this research and development, RTRI has been developing organized simulation tools named “Railway Simulator” using high performance computing technologies since 2010. This simulator mainly focuses on interaction in boundary regions such as wheel/rail/track/structure, pantograph/catenary, and so on. This paper describes our current research activities including the development of the railway simulator for the purpose of achieving a highly-safe and reliable railway system.