

INTERACTION DYNAMICS OF HIGH SPEED RAILWAYS

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ABSTRACT

Modern high-speed rails allow the trains to move at speeds over 250 km/h, making the intercity travel by railways more competitive than before. In the past two decades, high-speed railway networks have been expanded in Asia and Europe. With the increase in traveling speeds and volumes of passengers, higher levels of safety considerations in railway engineering with regard to design and maintenance of the system are required. This mini-symposium is aimed to bring together researchers, experts, and engineers from different branches of railway engineering to discuss the recent advances in researching the interaction dynamic problems of high speed railways. The range of topics to be considered includes (but not limited to): train-bridge interaction, vehicle-track dynamics, wheel/rail contact, moving loads induced soil-structure interaction, and simulation/testing of railway engineering, etc.

REFERENCES

- [1] Yang, Y. B., Yau, J. D., and Wu, Y. S., *Vehicle-Bridge Interaction Dynamics—with Applications to High-Speed Railways*, World Scientific, Singapore, 2004, 530 pages.
- [2] Yang, Y. B., and Hung, H. H., *Wave Propagation for Train-Induced Vibrations - A Finite/Infinite Element Approach*, World Scientific, Singapore, 2009, 471 pages.