

CONGRESSO DE MÉTODOS NUMÉRICOS EM ENGENHARIA

Lisboa, 29 Junho a 2 Julho, 2015

THEMATIC SESSION IN

Dynamic Effects In High-Speed Railway Tracks

SESSION ORGANIZERS:

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ABSTRACT: The analysis of the dynamic response of structures subjected to the action of high-speed trains has in recent times attracted the attention of numerous engineers, since the classical methods of evaluation of dynamic effects do not consider the possible appearance of resonant effects. These effects can lead to problems ranging from the comfort of passengers, the train or the track stability and the structural failure. Consequently, it is becoming more common for the design of these structures the realization of detailed dynamic analysis of different nature, which will be described and discussed in this session: analysis of dynamic effects in individual structural elements, calculation models that consider the vehicle-structure interaction and / or rail irregularities, transmission of vibrations caused by passing trains, etc..