Determination of wheel-rail contact points: comparison between classical and neural network based procedures

Stefano Falomi · Monica Malvezzi · Enrico Meli · Andrea Rindi

Received: 17 June 2008 / Accepted: 23 February 2009 / Published online: 12 March 2009 © Springer Science+Business Media B.V. 2009

Abstract The multibody simulation of railway dy- namics needs a reliable efficient method to evaluate the contact points between wheel and rail. In this work some methods to evaluate position of contact points are presented. The aim is to develop a method which is reliable in terms of precision and can be imple- mented on-line, assuring a calculation time consistent with real-time calculations of multibody dynamics.