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E-BABE- Numerical Modelling Of Wheel/Rail Contact According A Curve and Against Curve

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The degradations generated by the couple wheel/rail in contact according to a curve and against curve are the result of the mechanical behaviour of the wheel/rail contact. This approach consists in modelling the mechanical behaviour in order to predict the intensity of the damage and areas which could be the seats of high concentrations. In the curved line, the degradation of the wheel is strongly implied because of an unfavourable loading state. The results presented show the evolution of the displacement and stress fields as well as the states of the contact elements (slip, adherence etc.) at the static state. The wheel/rail contact has involved the Hertz theory. The work is modelled by the finite element method as implemented in the computer code of the ANSYS software. The results obtained are in good agreement with the operating conditions as well as the states of the couple loading. This study also serves to establish a preventive or conditional maintenance program in order to track spot areas identified by the predictive numerical model.

Biography:

BOUSSALIA has completed his magister in mechanical Engineering at the age of 37 years from Constantine University and postdoctoral studies from the same university. She is a teacher at professional training. She has published one paper in journal and has been participate in different congress.