عنوان مقاله:

An Experimentally Validated FE Analysis for Thermal Behavior of the Rolling Tire

محل انتشار:

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خلاصه مقاله:

Evaluating the thermal effects and variations in temperature of rolling pneumatic tires, is a very important factor in safe performance of the vehicles. Normally, the transient thermal investigation of rolling tires is performed by tire test rigs. However, experimental analysis is a very time and cost consuming process and because of technical limitations, the tests cannot be carried out in most severe conditions. In this work, a validated finite element model is proposed for transient thermal investigation of rolling pneumatic tires. Compared with the experimental tests, the current study gives satisfactory results for temperature distribution of the tire.

کلمات کلیدی:

Finite element method, rolling tire, hysteresis loss, transient thermal analysis