

## Residual Stress Analysis of Railway Wheel Dragged Using Sabots

PhD. eng. Doina Boazu, PhD. eng. Ionel Gavrilescu  
"DUNĂREA DE JOS" UNIVERSITY OF GALAȚI

### ABSTRACT

*The paper study the problem of residual stresses in the railway wheels dragged using cast iron sabots and the assesment of contact temperature and induced stresses. Transient heat transfer of dragged railway wheels was studied using FEM analysis. In this calculus were not taken into account material properties as functions of temperature. Residual stresses assesment establish a connection between possible railway wheel defects (possible cracks) and the drag endurance and wearing of sabots.*

**Keywords:** residual stress, railway wheel cracks

### References

1. **Ioan Pascariu**, *Elemente finite – Concepte - Aplicatii*, Editura Militara, Bucuresti, 1985.  
2. **Rao S.S.**, *The Finite Element Method in Enginnering*, Pergamon Press, New York, 1982.

2. **Rodica Talamba**, *Osia montata*, Editura ASAB, Bucuresti, 2005.  
3. **Zienkiewicz, O.C., Morgan, K.**, *Finite elements and Aproximations*, John Wiley, 1982.