

## **Finite element solution of transient radiation from thin wires**

**Dragan Poljak**

*Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture, University  
of Split, Ruđera Boškovića b.b., HR-21000 Split, CROATIA*

### **SUMMARY**

The transient response of a thin wire is analyzed by means of the time-domain electric field integral equation (TD-EFIE). The solution for the space-time dependent current distribution is obtained via time-domain Galerkin finite element procedure. This method is, in fact, the extension of the similar technique used for frequency domain problems. An important benefit of the proposed method is the possibility to treat a retarded time by a new, more convenient way than it is provided by usual moment method (MoM) approaches. Numerical results are shown to be in good agreement with other results available from literature.

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