

## **Maple as a laboratory tool in the study of RCL circuits**

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### **Abstract**

This paper explores the use of the computer algebra and symbolic computational software Maple as a valuable tool in the experimental study of RCL circuits. The traditional series RCL circuit is presented to show the usefulness of Maple software as a laboratory tool that can solve the circuit equations and more importantly display signals in a way analogous to the conventional oscilloscope (CRO). The effect of variation of the circuit components and input excitation conditions can be investigated fairly quickly and results displayed visually than what can be achieved in a typical practical laboratory.