

Synchronization Phenomena in a ring of coupled three van der Pol oscillators

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SUMMARY

Synchronization phenomenon is one of the most familiar phenomena that exist in nature and it has been studied in various fields since ancient times, such as in electrical systems, in mechanical systems, in biological systems, basically every where.

In this study, we investigate synchronization phenomena of a coupled system of van der Pol oscillators with frustration. Figure 1 shows the circuit model. We use two rings of van der Pol oscillators, the first ring is coupled by resistors, the second ring is coupled by inductors. When these two rings of three van der Pol oscillators are coupled by resistors, we investigate synchronization phenomena how changing by altering the value of the resistors.

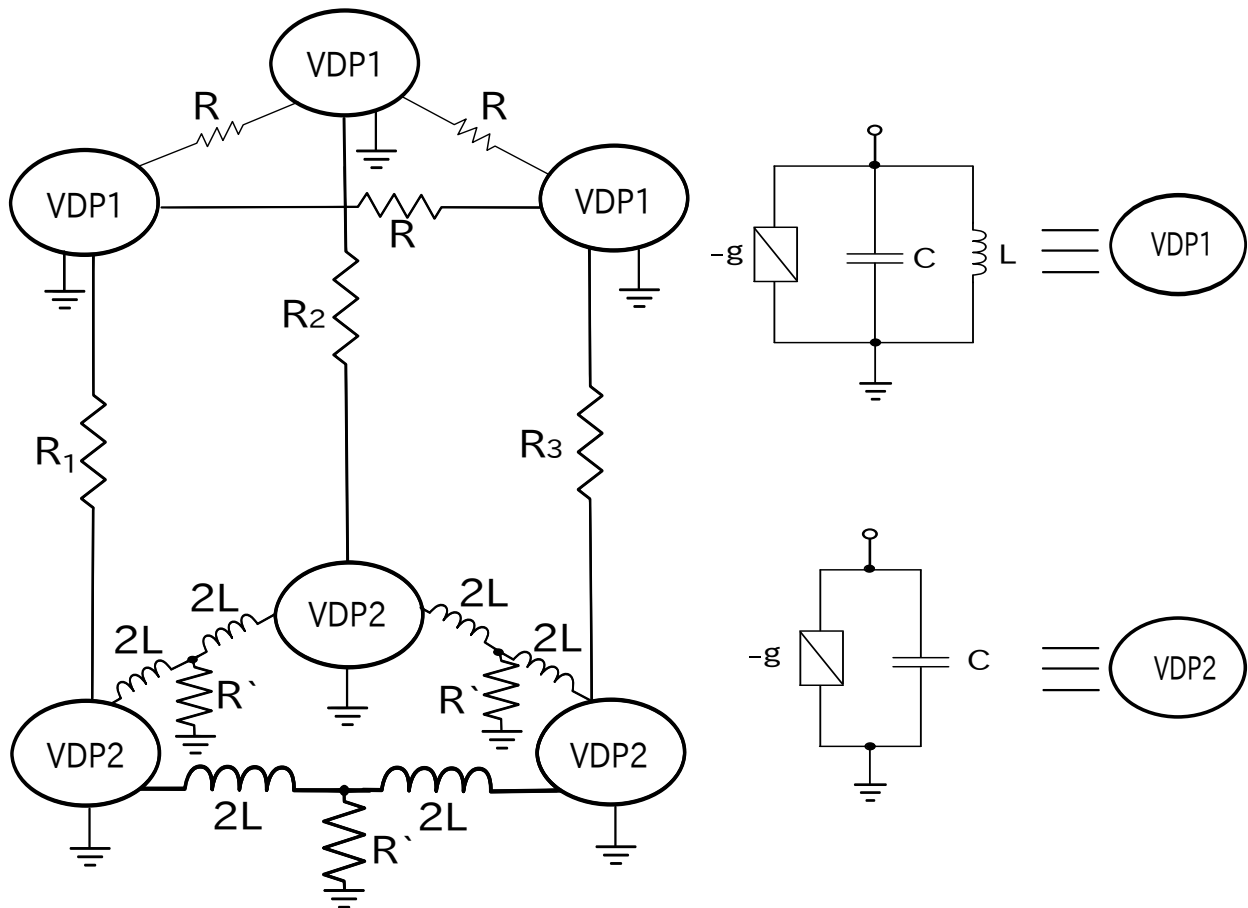


Fig. 1. circuit model.