

## Harmonic balance analysis of two bifurcation routes to chaos [frequency doubler]

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A. Suarez and J.-M. Collantes. "Harmonic balance analysis of two bifurcation routes to chaos [frequency doubler]." 1999 MTT-S International Microwave Symposium Digest 99.2 (1999 Vol. II [MWSYM]): 767-770 vol.2.

This paper shows the two different routes to chaos obtained in a varactor-based frequency doubler when using two different topologies for the input filter. The analysis of both routes to chaos, carried out in both frequency and time domain, has enabled an evaluation of the capabilities of the state-of-the-art harmonic balance technique in comparison with time domain methods. The good agreement shows the harmonic balance potential for the prediction of the initial bifurcations in common routes to chaos.

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