

Title: Solar inverter bifurcation

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We find that this inverter can exhibit multiperiod bifurcation, tangential bifurcation and paroxysmal chaos within certain ranges of control coefficients and other circuit parameters, which will influence the ...

There are complex nonlinear phenomena such as bifurcation and chaos in a sinusoidal pulse-width modulated fourth-order H-bridge inverter, which can reduce the stability of this inverter ...

This paper focuses on analyzing the slow-scale bifurcation phenomenon of a single-phase voltage source full-bridge inverter with an LCL filter. The simulations show that the slow-scale ...

The integration of numerous power electronic inverters into AC microgrids has introduced strong nonlinear dynamic characteristics. This poses challenges to the

In this paper we reported an unusual phenomenon that occurs in modern power DC/AC converters (inverters), namely the appearance of a macroscopic pattern stretching across the overall ...

Abstract--This paper presents bifurcation and chaos in a PWM current-mode H-bridge inverter. This inverter exhibits various interesting bifurcation phenomena. First, we briefly explain the behavior of a ...

A single-stage, single-sourced ACHB trinary inverter topology without presources is proposed and a bifurcation analysis-based design is proposed to eliminate the undesirable harmonics and chaos ...

The paper attempts to present a detailed study of the nonlinear phenomena that includes bifurcations, sub-harmonics and chaos in an effort to arrive at the appropriate choice of converter...

Abstract Aiming at the rich bifurcation and chaotic characteristics in the inverter with proportion integral derivative (PID) controller, the discrete iterative model of such an inverter was ...

Complex dynamical behaviors such as bifurcation and chaos exist in H-bridge inverter with RLC load, and



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these nonlinear behaviors will greatly increase the harmonic content of the output...

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