# Abstracts

## Intrinsic Pulsation in Stripe-Geometry DH Semiconductor Lasers

*C.-Z. Guo and K.-G. Wang. "Intrinsic Pulsation in Stripe-Geometry DH Semiconductor Lasers." 1982 Transactions on Microwave Theory and Techniques 30.10 (Oct. 1982 [T-MTT] (Special Issue on Optical Guided Wave Technology)): 1716-1725.*

The effects of lateral optical and carrier distributions and their interaction on dynamic processes in stripe-geometry DH semiconductor lasers are analyzed theoretically. The rate equations and field equations are rigorously solved simultaneously for numerical transient solutions. The calculated results show that, when the index waveguiding of the carrier distribution and the carrier diffusion become pronounced, in a certain range of injected current, the "intrinsic" pulsation, whose distinct feature is that the lateral optical beam width oscillates continuously and significantly during pulsation, may occur in the laser output.

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