TIME PERIODIC SOLUTIONS FOR A CLASS OF NONLINEAR BOUNDARY VALUE PROBLEMS

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Abstract. Using some results from the theory of monotone operators and a fixed point theorem due to F.E. Browder and W.V. Petryshyn, we prove the existence of time periodic solutions to a class of nonlinear hyperbolic problems, on positive semi-axis of spatial variable, which have applications in integrated circuits modelling.

Key Words and Phrases: Hyperbolic system, boundary condition, Cauchy problem, monotone operator, periodic solution.

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