

DECAY RESULTS FOR THE HEAT EQUATION UNDER RADIATION BOUNDARY CONDITIONS

L. E. PAYNE AND P. W. SCHAEFER

Abstract. The authors derive exponential decay bounds for the spatial derivatives of the solutions of some initial-boundary value problems for the heat equation in one and two space dimensions when linear radiation (Robin) conditions are prescribed on the boundary. Maximum principles for solutions of second order parabolic equations are used in deriving the results.

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