

Introduction To Thermistor Problem

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Abstract

Thermistors are semiconductor devices which are sensitive to heat (temperature). The thermistor problem was brought to the Oxford Study Group with Industry (OSGI) in the beginning of 1980's. Since then, it has received extensive attention in the mathematical world. In this talk, I will present the system of the thermistor equations with some a priori estimates and finally prove the existence theorem of this system using the Leray-Schauder fixed point theorem.