



偏微分方程及其应用中心

学术报告

报告题目: Quantitative analysis of positive solutions to the Lane-Emden problem in dimension two

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摘要: In this talk, we are concerned with the well-known Lane-Emden problem. Improving some known asymptotic estimates on the solutions, we prove the non-degeneracy and local uniqueness of the multi-spikes positive solutions for general domains. Our methods mainly use ODE's theory, various local Pohozaev identities, blow-up analysis, morse index, topological degree and the properties of Green's function. These are jointed with Massimo Grossi, Isabella Ianni, Shusen Yan.