数学与系统科学研究院

计算数学所学术报告

报告人： Prof. Cheong–ki Chan

(Department of Applied MathematicsThe Hong Kong Polytechnic University, Hung Hom, Hong Kong)

报告题目：

Simulation of Burning Rate in Turbulent Premixed Open V–Flames

邀请人： 袁礼研究员

报告时间： 2007 年 7 月 12 日(周四)

下午 16:00—17:00

报告地点： 科技综合楼三层 311

计算数学所报告厅

Abstract:

A Lagrangian front-tracking scheme incorporating Contour Advection with Surgery (CAS) is used to simulate turbulent premixed combustion. This paper presents results from calculations of methane/air mixtures and ethylene/air mixtures with equivalence ratios ranging from 0.8 to 1.6 with different turbulence intensities. The positions, thicknesses and half-angles of the turbulent flame zones are compared for each case by plotting contour maps of the time-averaged progress variable $<c>$. These results are then used to calculate the overall non-dimensional burning rates for each equivalence ratio.

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