



深圳北理莫斯科大学

УНИВЕРСИТЕТ МГУ-ППИ В ШЭНЬЧЖЭНЕ  
SHENZHEN MSU-BIT UNIVERSITY

# 应用数学讲座

Научный Семинар по Прикладной Математике

Research Seminar on Applied Mathematics

## 应用数学报告 (40)

报告人 / Докладчик / Speaker: Dr. A. Arutyunov

题目 / Название / Title: Non-stationary processes of ignition and oxidation of light alkanes

时间 / Время / Time: 29 Jun. 2022, 16:30-19:00

地点 / Место / Venue: 主楼 336

摘要 / Аннотация / Abstract:

The work is devoted to the study of non-stationary, nonlinear processes that occur during the oxidation and combustion of gas mixtures of methane and light alkanes, methane-hydrogen mixtures. Mathematical modeling of the conditions for the emergence of stable oscillatory regimes of methane partial oxidation has been carried out, and the influence of methane homologues and hydrogen on the self-ignition delay of such mixtures has been evaluated. New, unique results were obtained.

**Dr. A. Arutyunov 简介:**

Born in Moscow. Completed the Bachelor's, Master's and postgraduate studies at Lomonosov Moscow State University, Faculty of Computational Mathematics and Cybernetics. Defense of Ph.D. dissertation "Non-stationary processes of ignition and oxidation of light alkanes" at N.N. Semenov Federal Research Center for Chemical Physics, Russian Academy of Sciences. Worked as junior researcher at the Lomonosov MSU, Faculty of CMC and as researcher at Semenov FRCCP RAS. Reading a lectures "Kinetic foundations of gas-chemical processes", "Mathematical modeling of gas-phase processes" and performing scientific researches in the laboratory "Oxidation of hydrocarbons" of the Semenov FRCCP RAS.