



Meiji University Global COE Program
14th Mathematical Sciences based on
Modeling, Analysis and Simulation seminar



Date : October 7, 2009, 16:30~17:30

Location : Meiji Univ. Ikuta Campus, Build 2 Annex A, Room A205

Hirofumi Izuhara (Meiji Univ.)

Title : Pattern formation in smoldering
combustion under micro-gravity

Abstract : It is observed from experiments that the behavior of smoldering combustion under microgravity is completely different from that on the earth. When a piece of paper is burnt in a micro-gravitational environment, interesting ash patterns are observed on the paper. In order to understand how these observed patterns form a model was proposed which has been studied both analytically and numerically. In this talk we will focus on some numerical results, in particular threat from rekindling. As all of the paper is not completely burnt, combustion is sustained by rekindling. We numerically suggest that rekindler occurs from the mathematical model.

Everyone is welcome to attend the MAS seminar.

Meiji institute for Advanced Study of Mathematical Science (<http://www.mims.meiji.ac.jp>)

(Organizers: M. Mimura, D. Ueyama, Y. Wakano and K. Ikeda)

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Access: 10 minutes on foot from Ikuta St. Odakyu line,
Or 10 minutes by bus No. 13「明治大学正門前」, get off at the last stop.
See http://www.meiji.ac.jp/koho/campus_guide/ for details.