



Meiji University Global COE Program 35th Mathematical Sciences based on



Modeling, Analysis and Simulation seminar

Date: January 26, 2011, 16:20~17:20

Location: Meiji Univ. Ikuta Campus, Build 2 Annex A, Room A401

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Title : Different Contexts in Teaching Mathematical Modelling
and Applications to Engineering Students: Students'
Attitudes and Difficulties

Abstract : In this talk the results of two studies are discussed. The first study analyses engineering students' attitudes towards non-traditional for them contexts in teaching/learning of mathematical modelling and applications: environment and business. On the one hand, the contexts are not directly related to engineering. On the other hand, chances are that most of the graduates in engineering will be dealing with the environmental and business issues in one way or another in their future work because nearly every engineering activity has an impact on the environment and leads to commercial implications.

The second study investigates engineering students' difficulties in the formulation step of solving a typical application problem from a calculus course. The research question was to find reasons why most of the students could not use their knowledge to construct a simple function in a familiar context. It was neither lack of mathematics knowledge nor an issue with the context. The students' difficulties are analysed along with their suggestions on how to improve their skills in solving application problems.

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, K. Ikeda and S.Kinoshita)

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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.