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Abstracts of Short Communications and Posters

Section:

18. Teaching and Popularization of Mathematics

1991 MS Classification: 15, 34, 35, 40, 70, 78, 81

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Modernization of Basic Disciplines in Engineering Courses at IME

Analyses of current technological developments have shown the importance of solid background on Basic Sciences for professionals of technological areas. Only with a solid conceptual basis may these professionals be able to face the fast changes and the interdisciplinary aspects which surround modern technologies. Changes in teaching methodology and emphasis on interdisciplinary aspects are presented in this work. The subprojects in progress are the following: -MAPLE V in the Modernization of Calculus -Applications of MAPLE V in Physics -Notes on Physics with Electronic Slides -Linear Algebra with MAPLE V -Integration between Linear Algebra and Physics/Chemistry -Integration between Calculus and Physics -Integration between Physics and Engineering Laboratories -Final Project of the Basic Course (Mathematics and Physics)