11. When can we expect your definitive textbook on this subject?

12. Why do you think there was such a flurry of activity in this area around the turn of the century and then nothing until your paper of 1979? [The true answer is that people in the period in between had more sense.]

In general, a good ploy is to stop halfway through a totally meaningless question you are asking and pretend you have suddenly seen the answer yourself. However, never, never.

13. What are the applications of these results?

The speaker is probably embarrassed enough already!

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Department of Mathematics,
University College,
Cork,
Ireland.

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CONFERENCE REPORT

THE ROLE OF MATHEMATICS IN ENGINEERING EDUCATION

The conference was held on June 7 and 8 at NIME, Limerick and was attended by over fifty engineers and mathematicians from Universities, Polytechnics, NIMEs, RICs and Colleges of Education throughout Ireland as well as a number of representatives from industry. The aim of the conference was to discuss whether the importance of a mathematical education for engineers lies in the development of a formal language for the expression of engineering problems or in the provision of a problem solving tool kit. The six sessions were each addressed by a keynote speaker and followed by lengthy discussion periods.

The conference was set in motion by that 'honorary Irishman' Professor Avi Bajpai of Loughborough University of Technology who reviewed the development of engineering education in the last ten years, stressing the greater emphasis on computers which has led to more numerical and statistical techniques, control theory, optimisation and operations research. He suggested that the teaching of modelling by means of case studies could lead to an integrated approach which could be implemented by team teaching. At the conclusion of his talk Professor Bajpai demonstrated some material developed for computer assisted learning in the MTE project (Micros in Mathematical Education).

Professor Eamonn McQuade, NIME, Limerick, looked into his crystal ball and considered the implications of new technology, e.g. CAD, CRM and expert systems, on the skills required of engineers. He concluded that in the future engineers will need a strong fundamental knowledge of the underlying principles of their technology and insisted that mathematics teaching should concentrate on principles and concepts rather than solution techniques.
Dr Joe Morris of UCD inspired a lively discussion with his talk on the impact of Computer Science in Engineering Mathematics. He stressed the paramount importance of the ALGORITHM, rather than programming languages, in the teaching of Computer Science and pointed out that the ALGORITHM should also be influencing the way mathematics is taught. Some doubts were also expressed about the introduction of Computer Science in the secondary school.

After a lively conference dinner, participants were the next day to hear Professor Sean Scanlon of UCD outline the roles and interactions of model building and mathematical analysis in engineering design work. He pointed out that, as engineers must be equally skilled in both aspects of design, their mathematical education should be directed towards equipping them with an understanding of the 'fundamental ethos of the mathematics outlook'.

Tom Power of Waterford RTC addressed the problem of technician education. He advocated a structured approach to the teaching of concepts and algorithms with material organised so as to be easily referenced by engineering lecturers.

The final session of the conference was addressed by Dr Peter Lawes from Howmedica. His text was 'We don't know what we don't know'. He emphasised that only through strong links between industry and third level institutions can this information gap be bridged. He invited those in education to learn from industry so that they could in the long run influence industry.

A complete account of the proceedings of the conference will be published in a forthcoming issue of the International Journal of Mathematical Education in Science and Technology.

The organisers of the conference acknowledge the generous sponsorship of Howmedica International Inc., Analog Devices BV.