

INTERNATIONAL CONGRESS ON MODELLING AND SIMULATION, PERTH, AUSTRALIA 1993

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Hallelujah! For several years I have suggested, requested, nay almost demanded that conference papers be made available well before they are presented (see, Oxley (1988a,b, 1990, 1992)). All the delegates arriving for registration at the International Congress on Modelling and Simulation held at The University of Western Australia (UWA), were presented with four beautifully bound volumes of Proceedings comprising some 1,868 + xvi pages! In addition they received a Congress folder (which could accommodate two volumes), a list of participants with their contact addresses (excellent), and various pieces of promotional material. Cries of 'are they all for me?' were quite common at registration. Other cries of 'where can I get a drink in this place?' were also heard, but were more difficult to answer.

The Department of Economics at UWA was responsible for organizing the 1993 Congress, on the theme of Modelling Change in Environmental and Socioeconomic Systems, for the week 6–10 December 1993. The Congress incorporated the Tenth Biennial Conference of the Modelling and Simulation Society of Australia Inc., the Biennial Conference of The International Society for Ecological Modelling, the Annual Conference of The International Environmetrics Society, and a regular meeting of the International Association for Mathematics and Computers in Simulation. With registration fees ranging from \$A100–150 for students and \$A250–350 for regular delegates depending on whether payment was made very early, early or close to the conference date, the Congress was excellent value for money. Apparently, a loss was made on every student registration (clearly the future role of graduate students in the various societies is sensibly recognized), which is not surprising given the features of the registration package, including the four volume proceedings (with each contributed paper being restricted to six camera-ready typed pages), high-quality satchel, Congress dinner, and morning and afternoon tea, where freshly baked cakes were provided! Special deals on West Australian wine could also be arranged, although how much actually left Perth is an open question.

The Congress comprised over 300 contributed, invited and keynote presentations, as well as three presidential addresses, and was officially opened on Monday morning by the Acting Vice-Chancellor, Professor Alan Robson, to a truly international audience of academics. This was followed by Tony Jakeman, the first of three Presidential addresses given at the Congress where

Tony, as President of the Modelling and Simulation Society of Australia, spoke on 'From Data and Theory to Model of Environmental Change'. Tony's address was an excellent indicator of the interdisciplinary success that the Congress was to become. Good mathematical modelling can, and should, transcend narrow disciplinary groupings. Engineers, economists, hydrologists, oceanographers, meteorologists, biologists and ecologists could all follow Tony's presentation and, as was to be a common theme of the Congress, learn much through observation and questioning from their interdisciplinary 'colleagues'. The two other Presidential Addresses by Sven Erik Jorgensen (International Society for Ecological Modelling) on 'State of the Art of Ecological Modelling', and A. H. El-Shaarawi (The International Environmetrics Society) on 'Trend Detection and Estimation with Environmental Applications', were equally successful, as witnessed by the size and diversity of the audiences they attracted.

In addition to the presidential addresses, four keynote presentations were delivered by Soren Johansen on 'Likelihood Based Inference for Cointegration of Non-Stationary Time Series', Alan Powell on 'Integrating Econometric and Environmental Modeling', John Kaldor on 'Evaluating Causality in the AIDS Epidemic: The Role of Mathematical Models', and Jorg Imberger on 'Modelling Large Physical Systems'. The four speakers are recognized experts in their respective fields. All were well received, with audiences ranging in size from 150 to 270. Soren Johansen's presentation was of particular interest to the economists and econometricians in the audience, and was a harbinger of things to come in the specialist economic/econometric streams of papers. Soren was also an active and very lively discussant, both formally in sessions and informally at coffee during the morning and afternoon breaks. Jet-lag permitting, he was always willing to discuss when (and when not) to use reduced-rank estimation methods in economics, and has the evangelical traits that endear him to many.

As well as the three presidential and four keynote papers, other invited contributions were scheduled in one of five concurrent streams throughout the five days of the Congress. The sessions included hydrological systems, atmospheric systems, engineering, biological systems, econometrics, economics, finance, ecological systems, simulation and programming, population viability analysis and biodiversity, marine systems and forestry, modelling tools and frameworks, decision support systems, biometrics, aquatic systems, agricultural and grazing systems, fisheries, medical statistics, biostatistics, and methodology and philosophy. Of the 300-plus papers, an edited selection will be published in six international refereed journals (Mathematical and Computer Modelling, Environment International, Mathematics and Computers in Simulation, Ecological Modelling, Ecological Engineering, and Environmetrics), which must be some sort of record! Of these, over 50 were on economics, econometrics and finance. Many of these sessions involved discussions of cointegration and unit-root testing and it seemed to be almost a relief when the words 'Johansen method' and 'unit root tests' were not uttered. Overall, the quality of the economics/econometrics/finance sessions was *very* high, at least as good as many specialist economics/econometrics conferences I have attended. This was not

surprising given the number of well-known presenters from Australia and overseas (e.g. Japan, Canada, Singapore, The Netherlands, Denmark, Brazil and Taiwan), particularly in the econometrics sessions. I'm sure the econometricians added much to the Congress, and they could often be seen chatting to and questioning hydrologists, bio-statisticians and engineers alike. It was particularly pleasing to see a number of good student presentations interspersed with those of senior academics, no doubt encouraged by the creation of several student prizes by the organizers and the various societies.

The level and number of questions in the economics sessions was particularly high, helped undoubtedly by an opportunity to read the papers before their presentation. Clearly many people had done so and carried marked copies of the volumes from session to session. Each paper was allowed fifteen minutes for presentation, with five minutes for questions. In all the sessions I attended these rules were followed faithfully generally with the support of presenters and via a carefully selected choice of chairpersons. From a *Journal of Economic Surveys* point of view it was rewarding to see contributions from the *Journal* being cited and used, in papers such as Ron Bewley's work on the length of lag in the VAR of a cointegrated system. I found this paper interesting as it answered a number of practical problems I'd experienced regarding the apparent lack of power in identifying a cointegrating vector as the number of lags in the VAR increased. The success of the scientific content of the Congress was truly outstanding given the diversity of delegates and topics covered.

What of the social side of the Congress? A Congress Mixer and Wine Tasting opened the social aspect of the Congress on the Monday evening from 6–8.30 pm, and was staged in the tranquility of the Tropical Grove at UWA. Perhaps it was the heat, perhaps the strains of the day, or perhaps the knowledge that West Australian wine was to be available in abundant supply but, as 6.00 pm approached, the jackal-like packs approaching the tables of wine and food seemed to put fear into the caterers and helpers alike resulting in cries of 'get back' and 'it's not 6 yet', from the nervous and annoyed. The evening was a great success, however, with much mingling, drinking and generally high spirits, and a sterling performance from the wine waiters. The Congress Dinner on Wednesday the 8th, from 7–11.15 pm, was also a great success. Held in the grand Government House Ballroom and attended by over 300 delegates, it was a time to relax and enjoy the company of new and old friends alike. Other social events, however, were somewhat lacking from the Congress. The absence of a Congress bar no doubt upset some and the UWA campus site where most people stayed and where all papers were presented, is not ideally located for nightlife. However, a taxi to central Perth or bus/taxi to Fremantle opened-up a wealth of culinary experience. The local Redback beer soon proved to be a popular choice in bar and restaurant alike once you had decided to venture away from Kingswood College where most delegates stayed. A number of delegates did, however, stay at an excellent hotel in downtown Perth where the tariff was comparable to that of the colleges with en suite facilities. Various tours were also arranged through the hotel under the management of Clinton Watkins.

While the organization of the scientific and social aspects of the Congress, by Michael McAleer, Tony Jakeman and their many helpers, ran smoothly, the same cannot be said for the accommodation arrangements which were in the hands of the various autonomous Colleges. After 10–20 hours flying time and a 30-minute taxi ride from the airport, perhaps finding that your room key doesn't fit the lock is slightly annoying. However, finding that the key fits, but there is a woman in your bed (alternatively, the key fits, but the room is locked from the inside; the key fits, but the room is not made up; the key fits and the room is made up, but someone else is already using it; you are sleeping in 'your' bed, and someone else enters in the middle of the night, thinking it's their room), opens up all sorts of possible reactions! (I am not making it up—these things really did happen to a number of delegates!) The standard of the rooms was, however, very high. Not only did my shower work, but I must emphasize it was *my* shower and toilet. Furthermore, most people were housed within a few minutes walk of the sessions, which was a good thing given the heat of the Perth summer. I'm sure that everyone found a room eventually, but it should have been much easier than it turned out to be.

Overall, the Congress worked very well. Organization around a common theme was a clear advantage and it was obvious that much work had gone into the selection of papers and the organization of the various streams. Initially, I had been somewhat concerned about the commonality of interests between econometricians, hydrologists, engineers, and other social scientists. However, the links came through a (generally) common language of modelling techniques, where the caveat on 'generally' arose through the use of different terms for the same concept. For example, Tony Jakeman's use of the term 'gain' in a model of water run-off seemed identical to the idea of a 'multiplier' as used in economics. I'm sure wheels have been invented over and over again, probably quite often by economists! I would like to see more of these Congress-like arrangements in the future. Narrow specialist conferences serve a purpose, but they can become too cliquey and 'by invitation only'. The cross-fertilization of ideas seems a fruitful way of producing genuine scientific progress and one which the *Journal* has always promoted.

There are many memories from the Congress, due in the main to the hospitality and assistance offered by Michael McAleer, Tony Jakeman and their helpers. However, one of the enduring memories of the Congress will be due to the wit of some rake who, faced with posters advertising the 'International Congress on Modelling and Simulation', had scrawled, 'will Cindy Crawford be attending?'. The answer was no, but with hindsight it was probably an oversight! The next Congress will be held at the University of Newcastle, NSW, in December 1995—I hope I can attend. P.S. Don't forget to invite Cindy!

References

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