News

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ICCP–95:
International Conference on Complementarity Problems:
Engineering & Economic Applications and Computational Methods

Prof. M. Ferris and Prof. Jong-Shi Pang have organized this meeting on the impressive Homewood Campus of The Johns Hopkins University in Baltimore during the period November 1–4, 1995. The Johns Hopkins University is one of the oldest universities in the United States and in many scientific disciplines it is one of the world's leading research centers.

The objective of this conference was to bring together a focused group of engineers, economists and academicians to present and discuss the latest results in the field of complementarity problems with emphasis to applications as well as computational methods.

The contributions can be divided into several groups which show the temporary main research areas in complementarity problems. The largest group concerned numerical methods oriented to large problems with nonunique solutions. The problems are mostly converted to an equation form and then either smoothened (Harker, Chen, Moré, Gabriel) or one applies the tools of nonsmooth analysis (Facchinei, Fischer, Kanzow, Qi). To this group belong also numerous contributions on merit functions (Fukushima, Luo, Tseng) and some special methods. Several contributions dealt with so-called MPECs (mathematical programs with equilibrium constraints). In seems that especially the sequential quadratic programming approach, based essentially on the theory of PC^1-functions (Ralph, Luo, Pang) becomes a powerful tool for the numerical solution of these problems. Further talks have been devoted to the so-called implicit programming approach (Kočvara, Outrata) and special problems (Petersson, Patriksson). To this group one could partially assign also the excellent lecture of O. Mangasarian on ill-posed problems. Very many talks described interesting applications mainly from mechanics or economic modelling. From the mechanical applications I found especially inspiring the talks of Klarbring, Stewart and Trinkle in which the complicated Coulomb friction model has been considered. Further lectures cannot be clustered so easily; they ranged from deep theoretical works (Gowda, Gao) over the game theory (Flåm, Talman, Yang, Parthasarathy) up to interesting generalizations of linear complementarity problems (Cottle, De Schutter).

Altogether, it was a well-organized and successful event which has distinctly marked new trends in the area. It has helped to find new and to deepen existing contacts in this scientific community and we only hope that these meetings will become regular (the next should be held in Canada). A booklet of abstracts of the contributions is available, the Proceedings will be published by SIAM.

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