Editorial

This special issue of *Theoretical Computer Science* is devoted to selected papers of the International BCS-FACS Workshop on Semantics for Concurrency, held at the University of Leicester, UK, on July 23–25, 1990. The purpose of the Workshop was to bring together researchers working in different strands of semantics for concurrency, with emphasis on the unification of the theories.

In recent years we have witnessed a rather dramatic increase in the range of activities in theory of concurrency, which in turn has given rise to a multiplicity of different approaches towards abstracting nonsequential behaviour. On the one hand, process calculi, traditionally based on the interleaving abstraction, offer very elegant, compositional and highly abstract theories, which unfortunately have difficulties when dealing with issues such as fairness and action refinement. On the other hand, approaches based on causality, although easing problems with fairness and action refinement, still lack structure, compositionality and the elegance of the interleaving counterparts.

The objective of the Workshop was to halt the apparently divisive trend in the area, and instead encourage discussions leading towards increased cooperation and a furthering of common understanding. The Workshop met with an excellent response, and attracted contributions and participants from all over the world. The result was an interesting and varied programme, which was a combination of invited and refereed papers. The proceedings appeared as a volume published by Springer-Verlag in their Workshops in Computing series (M.Z. Kwiatkowska, M.W. Shields and R.M. Thomas, eds., *Semantics for Concurrency*, 1990). The papers in this issue have been selected by the Guest Editor. They have been refereed by indepenedent anonymous referees, and revised accordingly by the authors. The papers are representative of the range of issues discussed during the Workshop. These included process calculi, domain theory, Petri nets, causality-based models and logics.

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Guest Editor