FOREWORD

This Symposium can aptly be called the third triannual
Symposium on Computer Arithmetic. The first was sponsored
as a workshop by the Logic Design Subcommittee of the Systems
Technical Committee of the IEEE computer group. It was organ-
ized and followed up very ably by R. R. Shively. It was held
in Minneapolis, Minn. in June 1969. Nearly twenty-five attended
that event and approximately fifteen papers were presented.
A special issue of the IEEETC [Vol. C-19, 1970] presented the
major papers from this first symposium.

The second symposium was formalized as the IEEE Sym-
posium on Computer Arithmetic held in Maryland in May 1972.
Harvey L. Garner as Symposium Chairman and Dan Atkins as
Technical Chairman worked very well to generate greater inter-
est in the topic of computer arithmetic and bring together
an enlarged group. As a result there were over forty-five
attendees and nearly thirty papers were presented in the
symposium. Another special issue of the IEEETC [Vol. C-22,
1973] emerged including the major papers from this second
symposium on computer arithmetic.

The success of these first two symposia is further
evidenced in the subsequent steady growth of research in the
field yielding three dozen contributions to this third sym-
posium. The contributions range from mathematical foundations
to design case studies and are divided into the following
eight topic areas:

1) Mathematical Foundations of Computer Arithmetic,
2) Control and Monitoring of Precision,
3) Number Systems,
4) Residue Arithmetic and Error Control,
5) Arithmetic Algorithms and Their Analysis,
6) Case Studies of Arithmetic Processor Design
   and Implementation,
7) Ultra High Speed Arithmetic for Special Purpose
   Processors,
8) Parallelism and Array Logic.

A quarter of the contributions are from outside the U.S. making
this a true international symposium. Arrangements have been
made for the major papers from this symposium to appear in a
third special issue of the IEEETC scheduled for Volume C-25 in
1976.

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