Foreword

It gives us pleasure to introduce the Proceedings for the 36th international MATADOR conference. The Proceedings include 130 refereed papers from several countries on different continents, thus making this Conference truly international.

Since its inception in 1959, the MATADOR conferences have been held at various locations within the United Kingdom and overseas. The last conference was held in Taipei and this conference has reverted back to its “home” city, i.e. Manchester.

The MATADOR conferences in the 1960s dealt with metal working fundamentals in cutting, grinding and forming and the design of machine tools. Since those early days, new areas of research in manufacturing have emerged which therefore have become part of the conference’s scope as well. A substantial part of this conference is devoted to laser material processing especially recent developments in ultra-short pulse laser material processing, hybrid welding, fibre/disk laser applications and additive manufacturing. Other emerging areas that have been addressed in this conference include micro- and nano-manufacture, rapid manufacture, inspection of micro-parts, and sustainable and green engineering. The conference has continued to attract good quality papers from traditional areas such as metal cutting, forming, metrology and grinding.

We would like to express our gratitude to all the members of the Organising Committee and to those members of the International Scientific Committee who kindly refereed the papers. Our special thanks to Dr Robert Heinemann for preparing the Conference Proceedings and to Drs Roger Hannam and Nick Driver for proof reading and formatting the papers. Finally, we are indebted to Ms Janet Adnams and her team from ConferCare for organising this event.

We hope you find the papers interesting and stimulating.

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