
Editorial

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Biographical notes: Fabrizio Micari was graduated with honours in Mechanical Engineering in 1986. Currently, he is Full Professor of Manufacturing at the University of Palermo. He is President of Associazione Italiana di Tecnologia Meccanica (AITEM), Fellow of CIRP (International Institution for Production Engineering Research) and European Scientific Association for material FORMing (ESAFORM). The scientific activity has been mainly focused on the development of numerical models for the analysis of metals behaviour during forming and cutting processes and to the development of experimental tests aimed to the validation of the numerical results. He is co-author of more than 200 papers on international scientific journals or on the proceedings of national and international conferences.

Luigino Filice was graduated with honours in Management Engineering in 1995 at the University of Calabria. In 2000 he received the PhD at the University of Palermo (Italy). Currently, he is an Associate Professor of Manufacturing at the University of Calabria. His main research fields are the numerical investigation of the forming processes, the analysis of innovative forming processes and simulation of machining operations. He is co-author of more than 150 papers published in international journals or in the proceedings of conferences. He was awarded by ESAFORM in 2007 for the contribution in metal forming.

Domenico Umbrello was graduated in Mechanical Engineering in 2001. In 2005 he completed his PhD studies focusing on modelling and analysis of machining processes. Currently, he is an Assistant Professor of Manufacturing at the University of Calabria. His research activities are focused on: modelling and simulation of machining operations, advanced rheological models for hard materials and study of surface integrity by numerical analysis and experimental tests. He is co-author of more than 90 papers published in international journals and international conference proceedings. He was awarded with the 2005 AITEM Outstanding Young Manufacturing Research Award.

This Special Issue contains 12 peer-revised papers selected into the *10th CIRP Workshop in Modelling of Machining Operations* held in Italy in August 2007.

The Workshop is sponsored by CIRP and initiated in 1998, in Atlanta, Georgia, USA. It represents the continuation of the 2006 Workshop held in Bled, Slovenia.

The idea of the series was born in the working group on 'Modelling of Machining Operations' established in 1995 within the CIRP Scientific Technical Committee for Cutting (STC C). The aim of the group was to stimulate the development of models capable to predict the performance of metal cutting operations well suitable to the needs of metal cutting industry in the future.

Therefore, the objective of the Workshop is to gather experts from industry and academia, both to present and discuss recent advances in modelling of machining operations and to establish a fruitful dialogue between machining model developers and users. Furthermore, the Workshop aims to assess recommendations and perspectives for future researches.

We believe that the outstanding scientific content of the papers will provide significant enhancements in the field of modelling of machining operations and cutting technologies; as well we warmly hope that this Workshop will stimulate further research and developments in the next future.

It has been for us a real privilege and an honour to serve as Guest Editors for this Special Issue. We would like to thank all the authors who have contributed to this issue and given their perspectives. We would also like to acknowledge a great contribution made by the reviewers selected into the *International Scientific Committee of the 10th CIRP Workshop*.

Finally, we should acknowledge the constant support received from Prof. Paulo Davim, the Editor-in-Chief of *International Journal of Machining and Machinability of Materials*.