

Andrea Ghiotti

Curriculum

Andrea Ghiotti is Associate Professor in Manufacturing Engineering at University of Padova. After graduation in Mechanical Engineering in 2001 at University of Padova, he attended the doctorate in Industrial Engineering at University of Parma with final thesis in 2005. In 2004 he was winner of international scholarship for the "4th International Training on Precision Forging" at NICHIDAI Co. and Osaka University (Japan). In 2005 he was winner of the 2005 JSTP International Prize for Research & Development in Precision Forging, awarded by Japan Society for Technology of Plasticity in NARA (Japan). Andrea Ghiotti has research interest in the areas of metal forming, process monitoring and metal forming machines characterization. In these areas he is author of scientific papers published in national, international journals or presented at international conferences. Andrea Ghiotti has an extensive experience of participation of local, national and international scientific projects most of them in the area of metal forming and forming machines monitoring.

Educational activity

Teaching activity is developed at University of Padova, with regard to the courses of Fundamentals of Manufacturing Technology and Virtual Modelling of Manufacturing Processes.

Main Research Topics

Emphasis in material testing and physical simulation, metal forming processes and systems, process monitoring and SMART materials.

Membership and Appointment

Andrea Ghiotti is Research Affiliate member of CIRP - International Academy for Production Engineering- , member of ESAFORM (European Scientific Association for material FORMing), AITEM (Associazione Italiana di Tecnologia Meccanica) and ICFG (International Cold Forging Group).

Publications

[max 10 publications
in the last 3 years]

A. Ghiotti, S. Bruschi, F. Sgarabotto, Novel experimental set-up to investigate the wear of coatings for sheet metal forming tools, *International Journal of Material Forming*, 2014.

B.T. Tang, S. Bruschi, A. Ghiotti, P.F. Bariani, Numerical modelling of the tailored tempering process applied to 22MnB5 sheets, *Finite Elements in Analysis and Design*, 2014, 81:69-81.

A. Ghiotti, S. Bruschi, F. Sgarabotto, P.F. Bariani, Tribological performances of Zn-based coating in direct hot stamping, *Tribology International*, 2014, 78:142-151.

P.F. Bariani, S. Bruschi, A. Ghiotti, F. Michieletto, Hot stamping of AA5083 aluminium alloy sheets, *CIRP Annals - Manufacturing Technology*, 2013, 62(1):251-254.

A. Ghiotti, F. Sgarabotto, S. Bruschi, A novel approach to wear testing in hot stamping of high strength boron steel sheets, *Wear*, 2013, 302(1-2):1319-1326.

P.F. Bariani, S. Bruschi, A. Ghiotti, M. Simionato, Ductile fracture prediction in cold forging process chains, *CIRP Annals - Manufacturing Technology*, 2011, 60(1):287-290.

A. Ghiotti, S. Bruschi, Tribological behaviour of DLC coatings for sheet metal forming tools, *Wear*, 2011, 271(9-10):2454-2458.

A. Ghiotti, S. Bruschi, F. Borsetto, Tribological characteristics of high strength steel sheets under hot stamping conditions, *Journal of Materials Processing Technology*, 2011, 211(11):1694-1700.

D. Pellegrini, A. Ghiotti, S. Bruschi, Effect of warm forming conditions on AZ31B flow behaviour and microstructural characteristics, *International Journal of Material Forming*, 2011, 4(2):155-161.

A. Ghiotti, S. Bruschi, D. Pellegrini, Influence of die materials on the microstructural evolution of HSS sheets in hot stamping, *Key Engineering Materials*, 2011, 473:201-208.