

■ CONFERENCE PROGRAMME

IDDRG2011 Conference Topics

Acronym	Topic description	Total papers	Session number
NM&S	Numerical model and Simulation	12	3
MC	Material characterization	16	4
SP&M	Special processes & materials	11	3
UHSS	UHSS	8	2
HS	Hot stamping	5	1
T&D	Tools / dies	4	1
	Plenary	6	3



Sunday | June 05 | 2011

19:30 21:00	Welcome reception (Cocktail)
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Monday | June 06 | 2011

09:00 10:00	Registration
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10:00 11:30	Open ceremony - "A3 ROOM" [Chairman: <i>Marian Gutiérrez</i>]
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10:00 10:10	Welcome by the host - Joseba Jauregizar [TECNALIA General Director]
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10:10 10:20	Welcome by the IDDRG president - Nico Langerak
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10:20 10:30	Address of welcome - Edorta Larrauri [Technology Director - Gobierno Vasco / Eusko Jaurlaritza]
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10:30 10:40	Address of welcome - Marian Gutiérrez [TECNALIA]
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10:40 11:00	Keynote presentation by Arcelor Mittal - Atish Kumar Hatui "Development of high-added-value steel grades with CSP Technology conforming to automotive applications"
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11:00 11:30	Coffee
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Monday | June 06 | 2011

11:30 12:50		Paralel session 1	
		A3 Room	A2 Room
		NM&S1 [Chairman: Edwin Till]	T&D1 [Chairman: Daniel Casellas]
11:30 11:50	“Analytical Simulation of Deep Drawing Processes” - Tim Cwiekala , Alexander Brosius, A. Erman Tekkaya [Institute of Forming Technology and Lightweight Construction]	“Study on SCS Process by Variation of Geometrical and Tribological Parameters of Forming Die” - Apostolos Papaioanu , M. Liewald [Institute for Metal Foming Technology]	
11:50 12:10	“Validation of advanced material models using the crossdie test” - H.H.Wisselink* , M. S. Niazi* and J. Hu’etink** [*Materials Innovation Institute, **University of Twente]	“Simulation based analysis of tool deformation when punching high strength steel” - Niclas Stenberg* , B. Högman**, F. Bergström**, L. Troive*** [*Swerea KIMAB AB, *KTH Production Engineering, **Uddeholms AB, ***SSAB AB]	
12:10 12:30	“Mixed hardening models: parameters identification on AHSS steels” - X. Lemoine* ,**, L. Durrenberger*, H. Zhu*, R. Kergen* [*ArcelorMittal, **LEM3]	“Influence of the microstructure in the tribo-mechanical behavior of UHSS cutting tools” - Ingrid Picas* , Ricardo Hernández**, Daniel Casellas**, Isaac Valls*** [*CTM, **Universitat Politècnica de Catalunya, ***ROVALMA S.A.]	
12:30 12:50	“Improved FEM Simulation of Sheet Metal Forming with Friction Modelling using Laboratory Tests” - Jan Filzek* , Manuel Ludwig**, Peter Groche** [*FILZEK TRIBOtech, **Institut für Produktionstechnik und Umformmaschinen]	“Wear Evaluation of DLC-Coatings for Sheet Metal Forming Tools.” - Francisco Sgarabotto* , Andrea Ghiotti*, S. Bruschi** [*University od Padua, **University of Trento]	
12:50 14:20		Lunch	

Monday | June 06 | 2011

14:20 15:40		Paralel session 2	
		A3 Room	A2 Room
		NM2 [Chairman: <i>Pavel Hora</i>]	UHSS1 [Chairman: <i>José M^a Cabrera</i>]
14:20 14:40	“Effect of Forming Speed on Cup Drawability of GA Steel Sheet Using Mechanical Servo-Press Machine” - Kenichiro Otsuka , Masahiro Nakata [Corporate R&D]	“Alternative stretch flangeability characterisation methods for AHSS steel grades” - Patrick Larour , Heinrich Pauli, Johann Freudenthaler, Anton Grünsteidl [Voestalpine Stahl GmbH]	
14:40 15:00	“Investigation on punched edge formability” - Matthias Schneider , Uwe Eggers [Salzgitter Mannesmann Forschung GmbH]	“Young’s modulus variation during unloading for a wide range of AHSS steel sheets.” - J.A. Benito , R. Cobo, R. Hernández, M.D. Riera [Fundació CTM centre tecnològic de Manresa, Universitat Politècnica de Catalunya]	
15:00 15:20	“Stochastic Simulation of Deep Drawing Processes using Online Acquired Yield Curves” - Jörg Heingärtner* , Raphael Hitz*, Niko Manopulo*, Pavel Hora*, Anja Neumann**, Dirk Hortic**, Marion Merklein*** [ETH Zurich, **Daimler AG, ***Chair of Manufacturing Technology (LFT)]	“Strategies to improve stretch-flangeability in advanced high strength steels” - David Gutiérrez* , J. Escaler*, A. Lara*, D. Casellas**, and J.M. Prado*** [Fundació CTM Centre Tecnològic, **Universitat Politècnica de Catalunya]	
15:20 15:40	“Stress analysis of a deep drawn cup with plastic anisotropy and rate sensitivity at elevated temperatures” - K. Ghavam , Reza Bagheriasl, M.J. Worswick [University of Waterloo]	“The Bending Under Tension (BUT) machine as a spring back evaluator” - Arne Melander** , Håkan Thoors*, Niclas Stenberg** [Swerea KIMAB, **KTH Production Engineering]	
15:40 16:00	Coffee		

Monday | June 06 | 2011

16:00 17:20		Paralel session 3	
		A3 Room	A2 Room
		MC1 [Chairman: <i>Arne Melander</i>]	UHSS2 [Chairman: <i>Arto Ranta-Eskola</i>]
16:00 16:20	“Variation of mechanical properties in cold rolled steel sheet and its effect on the prediction of forming limit curves” - Fuminori Sugawara* , Toshihiko Kuwabara* and Kengo Yoshida** [* Tokyo University of Agriculture and Technology , ** Yamagata University]		“Strain-Rate Dependent R-Values of Advanced High Strength Steel Sheets” - Jeehyang Huh , H. Huh [Korea Advanced Institute of Science & Technology]
16:20 16:40	“Setting up a consistent database of FLC’s” - Eisso Atzema , M. Abspoel, J.M.M. Droog and M.E. Scholting [Tata Steel Research, Development & Technology]		“Experimental study of end forming of roll-formed profiles in ultra high strength steels” - Elisabeth Sagström , Jonas Holmberg [Swerea IVF]
16:40 17:00	“Inherent influence of strain path in Nakazima FLC testing” - Eisso Atzema , M. Abspoel, J.M.M. Droog, T. Khandeparkar, M.E. Scholting, F.J. Schouten and H. Vegter [Tata Steel Research, Development & Technology]		“Fracture toughness characterization of advanced high strength steels” - Ricardo Muñoz* , A. Lara*, D. Casellas*, ** [* Fundacio CTM Centre Tecnològic , ** Universitat Politècnica de Catalunya]
18:30	Funicular to Typical local dinner		
19:30 20:15	Appetizer in “basque atmosphere”		
20:15 22:30	Typical local dinner		
22:30 23:00	Coming back		

Tuesday | June 07 | 2011

09:00 11:10			Plenary session [Chairman: <i>Richard Kergen</i>]	
			A3 Room	
09:00 09:25			"Improving the Sustainability of Flexible Roll Forming with Curvature Optimized 3D-Profiles" - Roland Hennig , Albert Sedlmaier, [Data M Sheet Metal Solutions]	
09:25 09:50			"New applications of press hardening technology: skin outer panels" - Ignacio Garcia Acha* , Miren Redondo*, Jose Ignacio Zarazua**, Borja Fernandez* [*DieDe, **Tecnalia]	
09:50 10:15			"What was the first tailored blank?" - Alain Col [Arcelor Mittal]	
10:15 10:40			"Model based Estimation of Reliability in the virtual Layout of Deep Drawing Processes" - Christoph Annen* , F. Schwarz**, M. Wahl* and P. Hora** [*AUDI AG, ETH Zürich, ** Institute of Virtual Manufacturing]	
10:40 11:10			Coffee	
11:10 12:50			Paralel session 4	
			A3 Room	A2 Room
			MC2 [Chairman: <i>Xavier Lemoine</i>]	HS1 [Chairman: <i>Frank Josef Lenze</i>]
11:10 11:30			"Formability Limit Curves under Stretch-Bending" - Alejandro Martinez Lopez* , **, and A.H. van den Boogaard** [*Materials innovation institute (M2i), **University of Twente]	"Identification of the Impact of Differing Heating Technologies on the Coating Properties of Hot Dip Aluminized 22MnB5 for the Optimal Design of Economical and Ecological Heating Strategies" - Philipp Siebert , Michael Alsmann, Joerg Globes, Hans-Josef Watermeier [Volkswagen AG Kassel]

Tuesday | June 07 | 2011

11:10 12:50			Paralel session 4	
			A3 Room	A2 Room
			MC2 [Chairman: <i>Xavier Lemoine</i>]	HS1 [Chairman: <i>Frank Josef Lenze</i>]
11:30 11:50	“Generalized forming limit curve based on critical stress flux” - M. P. Sklad* , J.F. Siekirk** and J. D. Verhaeghe*** [*Mc-master University, **Chrysler Group LLC, ***FMTI Systems]		“Experimental and numerical investigation of various hot stamped B-Pillar concepts based on Usibor@1500P” - Bertrand Tavernier , Joël Wilsius, Damien Abou-Khalil [ArcelorMittal]	
11:50 12:10	“Cyclic tension/compression test of auto-body steel sheets with the variation of the strain rate” - G. H. Bae , H. Huh [Korea Advanced Institute of Science & Technology]		“Recent development in Hot Forming Technology for Indian automotive industry with B-Mn steel” - Dr. Dhananjay Kumar [KLT Automotive and Tubular products Ltd.]	
12:10 12:30	“Method for the evaluation of the hydraulic bulge test” - Philip Peters* , Christian Leppin**, Pavel Hora* [*Institute of virtual manufacturing, ETH Zurich, **3A Technology & Management]		“Tailor Strategies in Press Hardening” - Borja Fernández* , Jon Zarate*, Ignacio García* and Sonia Varela** [*DieDe, **Tecnalia]	
12:30 12:50	“Improvement of compact biaxial tensile testing apparatus using conventional tensile testing machine and evaluation of the test results” - Susumu Takahashi* , T. Nagayasu* and T. Kuwabara** [*Nihon University, **Graduate School of Tokyo University of Agriculture and Technology]		“Implementation of advanced high strength steels and hot stamping into household appliances” - Assist. Prof. Dr. Tomaž Pepelnjak* , Gregor Voh**, Blaž Nardin**, Karl Kuzman* [*Faculty of Mechanical Engineering Ljubljana, **Gorenje Orodjarna d.o.o.]	
12:50 14:20			Lunch	

Tuesday | June 07 | 2011

14:20 15:40		Paralel session 5	
		A3 Room	A2 Room
		NM3 [Chairman: <i>Abel Santos</i>]	SPM1 [Chairman: <i>Lander Galdos</i>]
14:20 14:40	“A Use Based Approach for Design and Validation of Multi-Stage Processing of Sheet Stampings” - Stephan Rudolph , Victor Apanovitch, Derek Peeling, Viktor Petchenov [Forming Tehnologies Inc]	“Process Planning and Metallurgical Issues for Laser Assisted Spin Forming of Dual Phase Automotive Steel” - J. Otero , Pablo Romero, N. Otero, J. Otero*, J.A. Benito, P. Rodriguez Calvillo** [*AIMEN, **UPC]	
14:40 15:00	“Coupled FEM/BEM-Analysis for Time-Efficient Numerical Tool Optimization of the Deep Drawing Process” - Vladimir Baecker , F. Klocke, H. Wegner, P. Mattfeld and R. Grzhibovskis [WZL/RWTH Aachen]	“Feasibility of high-strength 7xxx aluminium sheet components through warm forming” - Nikolay Sotirov* , P. Simon*, D. Uffelmann**, C. Melzer**, P. Dörner*** [*Leichtmetallkompetenzzentrum Ranshofen, **AMAG Austria Metall, ***Fronius International]	
15:00 15:20	“Towards Accurate Assessment of Sheet Forming Processes with AHSS Grades” - E. T. Till* , E. Berger*, H. Pauli*, D. Kitting**, C. Walch* [*Voestalpine Stahl GmbH, **Virtual Vehicle]	“Warm incremental forming of magnesium alloys. Material formability and process limits” - Lander Galdos , E. Saenz de Argandoña, I. Ulacia and A. Ruiz de la Torre [Mondragon University]	
15:20 15:40	“Neural network optimization of the forming process in case of a part made from tailor welded blanks” - Aurelian Albut , Crina Radu [University of Bacau]	“Optimization of Superplastic Forming of Aluminium 5083Alloy based on a Multiscale Failure Criterion” - N. Otegi , L. Galdos, I. Hurtado [Mondragon Unibertsitatea]	
15:40 16:00		Coffee	

Tuesday | June 07 | 2011

16:00 17:00		Paralel session 6	
		A3 Room	A2 Room
		MC3 [Chairman: <i>Nader Asnafi</i>]	SPM2 [Chairman: <i>Miklos Tisza</i>]
16:00 16:20	“Sheet Metal Characterization by Plane Torsion” - Q. Yin , A. Brosius, A.E. Tekkaya [Institute of Forming Technology and Lightweight Conctruction]	“The contribution of process parameter to Single Point Incremental Forming Process: An experimental” - Kittiphatt Rattanachan and Chatchapol Chungchoo [Kasetsart university]	
16:20 16:40	“Flow Stress Determination Using Hydraulic Bulge Test and a Mechanical Measurement System” - Abel D.Santos* , Pedro Teixeira**, F. Barlat*** [*Faculty of Engineering, University of Porto, **INEGI, ***GIFT]	“Numerical Studies and Equipment Development for Single Point Incremental Forming” - Ricardo Alves de Sousa , S.R. Marabuto, J.I.V. Sena, D. Afonso, M.A.B.E. Martins, R.M. Coelho, J.A.F. Ferreira, R.A.F. Valente [University of Aveiro]	
16:40 17:00	“Estimation of Stretch Flange-ability by Side Bending Test” - Koichi SATO , Tohru Yoshida, Masaaki Mizumura, Masayoshi Suehiro, Satoshi Shirakami, Hiroshi Yoshida [Nippon Steel corporation]	“Methodology to identify the suitability of new materials for Asymmetric Incremental Sheet Forming” - Antonio Rubio* , M. Penalva*, S. Granados*, A. Rivero*, M. Goigana** [*Tecnalia, **University of the Basque Country, ETSII]	
18:30 18:45	Gathering at Bilbao Maritime Museum		
18:45 20:15	Boat appetizer		
20:30 22:30	IDDRG Conference Dinner		
22:30 23:00	Coming back		

Wednesday | June 08 | 2011

09:00 10:30		Paralel session 7	
		A3 Room	A2 Room
		MC4 [Chairman: <i>Chester Van Tyne</i>]	SPM3 [Chairman: <i>Marian Gutierrez</i>]
09:00 09:20	“Uniaxial and Biaxial Characterization of 6082 Aluminium Alloy for Warm Tube Hydroforming Processes” - I. Torca , J.A. Esnaola, L. Galdos, C. Garcia [University of Mondragon]	“Pressure Field Adjustment by Means of Wire Insertion in Electrohydraulic Metal Forming” - Iñaki Perez , Iñaki Eguia*, J. San José*, M. Knyazyev**, Ya. Zhovnovatyuk** [*Tecnalia, **National Aerospace University “KhAI”]	
09:20 09:40	“Measurement and Characterization of Flow Curves for Hot Press Forming” - Kanghwan Ahn , Donghoon Yoo, HongGee Kim, Kwansoo Chung [POSCO Technical Research Laboratories]	“Deep drawing experiments of AZ31 magnesium alloy” - Kamyar Ghavam , D. Ghaffari Tari, M. J. Worswick [University of Waterloo]	
09:40 10:10	“1.4310 (C1000) stainless steel characterizations” - François TOSCAN* , Xavier BELLUT**, Moulay LAFOUNADRI**, Laurent DURRENBERGER*** [*ArcelorMittal Stainless Europe, **ArcelorMittal Global R&D Montataire, ***ArcelorMittal Global R&D Maizières]	“Analysis of Sandwich Shells with Metallic Foam Cores based on uniaxial tensile test” - Abel D. Santos , Helder Mata, A. A. Fernandes, R. A. F. Valente, M. P. L. Parente, R. Natal Jorge [IDMEC-FEUP]	
10:10 10:30	“Formability assessment using a damage-coupled necking criterion” - Pedro Teixeira , Abel D. Santos, J.M.A. César de Sá, F.M.A. Pires [Institute of Mechanical Engineering and Industrial Management]	“Development of Press Forming Technologies for Flange Less Closed Polygonal Cross Section Parts “ - Kazuhiko Higai* , Yuji Yamasaki *, Toru Inazumi* and Katsuhiko Ochi** [*JFE Steel Corporation, **NIPPRE CO.]	
10:30 10:40	Coffee		



Wednesday | June 08 | 2011

10:40 13:00	End of the Conference - "A3 ROOM" [Chairman: <i>Nico Langerak</i>]	
10:40 11:05	"Tailored Tempering - New Process Technology for Hot Stamped Parts" - J. F. Lenze, S. Sikora, J. Banik, T. Gerber [ThyssenKrupp Steel Europe AG]	
11:05 11:30	"Effect of tube bend angle on limit strains during hydroforming of DP - 590 steel tubes" - K. Narasimhan, M. P. Jaju [Indian Institute of Technology]	
11:30 11:45	IDDRG 2012	
11:45 12:00	End of the conference	
12:00 13:00	Lunch	
13:00 16:00	Technical Visits:	
	GROUP 1 13:00 15:00	Tecnalia Bizkaia
	GROUP 2 13:00 15:30	AIC - Tecnalia - GESTAMP
	GROUP 3 13:00 15:30	AIC - CIE Automotive - MbTooling