

# 12<sup>TH</sup> ANNUAL INTERNATIONAL POLYMER COLLOQUIUM

Friday, April 6th, 2012 • 8:00am – 4:30pm

Engineering Centers Building, Room 1025, 1550 Engineering Drive, Madison, WI

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## Agenda

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| 8:00am – 8:45am    | Registration and Breakfast  |
| 8:45am – 9:00am    | Opening Remarks by Prof. Tim Osswald  |
| 9:00am – 9:25am    | <b>"Effect of fast cooling on the foaming of microcellular injection molding,"</b><br>Prof. Shia Chung Chen, Chung Yuan Christian University  |
| 9:25am – 9:50am    | <b>"Influence of component warpage onto process control and component properties during vibration welding,"</b><br>Prof. Michael Gehde, Chemnitz University of Technology                   |
| 9:50am – 10:10am   | <b>"New insights into microscopy of interfaces in injection molded parts,"</b><br>Dr. Ines Kühnert, Leibniz Institute of Polymer Research, IPF Dresden                                      |
| 10:10am – 10:40am  | Morning Break and Poster Session  |
| 10:40am – 11:00am  | <b>"Injection molds in cleanroom environments,"</b> Dipl.-Ing. Peter Röstel,<br>University of Applied Sciences Schmalkalden   |
| 11:00am – 11:20am  | <b>"A fully three dimensional numerical approach simulating the melting zone in a single-screw extruder,"</b> Dipl.-Ing. Sebastian Grammel, Institute of<br>Plastics Processing, IKV Aachen |
| 11:20 am – 11:40am | <b>"Simulating the parison geometry in extrusion blow molding with viscoelastic material models,"</b> Dipl.-Ing. Christian Windeck, Institute of<br>Plastics Processing, IKV Aachen         |
| 11:40am– 12:00am   | <b>"Modeling and analysis of aliphatic epoxy resin with and without diffusion,"</b> Ms. Nora Restrepo, National University of Colombia-Medellin   |
| 12:00pm – 1:20pm   | Lunch   |
| 1:20pm – 1:40pm    | Poster Session  |



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**Moldex3D**<sup>®</sup>  
True 3D CAE for Injection Molding



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- 1:40pm – 2:00pm     **"Latest Moldex3D simulation technology and application,"** Dr. Wen Hsien (Anthony) Yang, Moldex 3D
- 2:00pm – 2:20pm     **"Rheology and leveling of polymeric films,"** Mr. Alejandro Olaya, National University of Colombia-Medellin
- 2:20pm – 2:50pm     Afternoon Break and Poster Session
- 2:50pm – 3:10pm     **"Laser direct structuring of thermally conductive polymers: an innovative thermal management approach,"** Dipl.-Ing. Florian Ranft, Institute of Polymer Technology, LKT Erlangen
- 3:10pm – 3:30pm     **"Measurement of the strain-dependent Poisson's ratio for the crash simulation of technical thermoplastics,"** Dipl.-Ing. Barbara Heesel, Institute of Plastics Processing, IKV Aachen
- 3:30pm – 3:50pm     **"A contribution for qualitatively modeling of friction and wear behavior of thermoplastics,"** Dipl.-Ing. Michael O. Kobes, Institute of Polymer Technology, LKT Erlangen
- 3:50pm – 4:00pm     Closing Remarks by Prof. Lih-Sheng (Tom) Turng
- 4:00pm – 4:30pm     Tour of the Polymer Engineering Center Laboratory and the Wisconsin Institutes for Discovery
- 7:00pm – 10:00pm    Evening reception at the Memorial Union (800 Langdon Street, Madison, WI)

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## Poster session

### "Improvement of the Shrinkage Simulation of Thick-walled Plastic Parts"

Yuxiao Zhang, Martin Loehner, Natalie Rudolph and Tim Osswald

### "Fiber Motion during Injection Molding"

Luisa Lopez, Daniel Ramirez, Jakob Onken, Camilo Perez and Tim Osswald

### "Micropelletization by using Rayleigh disturbances"

Daniel Kasperek, John Puentes, William Aquite and Tim Osswald

### "High-Pressure Slit Rheometer"

Roberto Monroy, Camilo Perez and Tim Osswald

### "Economic Analysis of Plastic Recycling"

Katharina Stoeckl, Katerina Sanchez and Tim Osswald

### "Polystyrene (PS) recycling guidelines based on changes of mechanical and rheological properties due to extrusion and injection molding processes"

Andres Perdomo, Katerina Sanchez and Tim Osswald

### "Characterization of Sintered PLA Scaffolds for Bone Tissue Engineering"

Tom Mulholland, Katerina Sanchez, Sylvana Garcia and Tim Osswald

### "Dimensional Analysis and Scaling in Mechanical Mixing for Fabrication of Metal Matrix Nanocomposites (MMNCs)"

Sylvana García-Rodríguez, Noé Alba Baena, Natalie Rudolph, Jochen Wellekötter, Xiaochun Li and Tim A. Osswald

### "Improving Surface Quality of Foamed Polycarbonate (PC) Parts Using Water as the Physical Blowing Agent"

Jun Peng and Lih-Sheng Turng

### "The effects of Nanoclay on the Rheological Properties of Polylactic acid (PLA)/Polyhydroxybutyrate-valerate (PHBV) Blends"

Haibin Zhao and Lih-Sheng Turng

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