

# **2012 TAPPI PEERS Conference**

## **Building a Sustainable Future**

**Savannah, Georgia, USA**  
**14-18 October 2012**

**ISBN: 978-1-62276-844-8**

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



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Printed by Curran Associates, Inc. (2013)

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### Session 01: Opening Session/ Keynote

P IC **Don Roberts**, *Vice-Chairman of Whole Banking & Managing Director of Investment Banking CIBC World Markets, Inc.*

[A Whirlwind Tour of Investment Trends & Issues in the Global Bio-Energy Space](#)

### Session 02: State of the Industry Moderator: **Steve Tremont**, *BASF Corp.*

P IC **Rod Fisher**, *Fisher International*

[Fiber Supply & Demand](#)

### Session 03: Dissolving Pulp Moderator: **Daniel Connell**, *AkzoNobel*

3 **W. Eric Wiley**, *Andritz Inc.*; **Aaron T. Leavitt**, *Andritz Brazil Ltda.*; **Brian F. Greenwood**, *Andritz Inc.*

[DP Manufacture](#)

; **Enrique Mateos-Espejel**, *Naceur Jemaa*, *FPIinnovations*

[Implications of Converting a Kraft Pulp Mill to a Dissolving Pulp Operation with a Hemicellulose Extraction Stage](#)

### Session 04: Recycling - Recovery & Pulping Moderator: **Carl J. Houtman**, *USDA Forest Products Lab*

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[Evaluating Repulpability and Recyclability of Blend of Post-Consumer Quick Service Paper Packaging Material with Specified Fiber Grades at Readily Available Mill Types Utilizing Newly Developed Standards](#)

54 **Mika R.J. Korkko**, *University of Oulu*; **Daniele**

[Fractional pulping using recovered](#)

**Bussini, Graziano Elegir**, *INNOVHUB-Stazioni Sperimentali per l'industria*; **Jouko Niinimäki PhD**, **Kalle Kemppainen**, *University of Oulu*

[paper mixture containing flexographic and offset newsprints with magazines](#)

5: **Marco Pescantin**, *Comer SpA*

[Next Generation Fiber - A Sustainable Win-Win Solution](#)

### Session 05: New Technology Showcase (8 Minute Commercial Presentations)

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64 **David Schaaf**, *MWV*

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78 **Mark Scotch**, *McLanahan Corporation*

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93 **Sandra Beder-Miller**, *BTG Americas Inc.*

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99 **Jon Foan**, *NORAM Engineering*

[LignoForce™ Recovery of Lignin from Black Liquor](#)

: 6 **Jeff M. Butler**, *Metso*

[Recovery Boiler Dissolving Tank Density Control Using Online Titration Measurements and Advanced Process Control](#)

**Session 06: Stickies & Contaminants**  
Moderator: **Garnet L. Bremner**, *Nalco Company*

- ;2 **Michelle A. Ricard**, *FPInnovations*      [Online Analysis of Macrostickies in a Sorted Office Waste Recycling Plant Making Fibre for Tissue](#)  
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- 326 **Yuxia Ben**, *FPInnovations*      [Startup of a Large Industrial Flotation Column for Whitewater Cleaning](#)
- 339 **R. Daniel Haynes Sr.**, *AkzoNobel*      [Colloidal Organic Content and Tackiness of Coated Broke and Recycle Fiber](#)

**Session 07: The Business of Running Your Business in the Future**  
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- 356 **G. Ronald Brown**, *Agenda 2020 Technology Alliance*      [Paper and Forest Innovation – Progress on the 2010 Technology Roadmap](#)
- 368 **V. R. Parthasarathy**, *Weyerhaeuser Company*      [Moving Away From Taking Risk to Managing Uncertainty Using Real Options as a Strategic and Capital Investment Tool- A Case for Using Option Pricing Model \(OPM\) to Evaluate Project Investments](#)
- 37; **Rodney E. Grieve**, *BRANTA Worldwide Inc.*      [Identifying Cultural Hazards - Is Your Mill Out of Balance](#)

## Session 08: Process Equipment Reliability Through Inspection & Material Selection

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- 393 **Yushu Wang, Preet M. Singh**, *Georgia Institute of Technology* [Effect of white water chemistry on passivation behavior of stainless steel 304L](#)
- 3: 7 **Tobias Olli**, *Swerea KIMAB* [Corrosion of stainless steels in contaminated sulfamic acid](#)
- 3: 4 **Geoff Clarkson**, *UTComp Inc.* [Ultrasonic Condition Monitoring or Fiberglass Reinforced Plastic Equipment](#)
- 425 **David C. Bennett**, *Corrosion Probe, Inc.*; **John M. Grocki**, *Advantage Resources Consulting LLC*; **Neville Stead**, *FPInnovations* [Replacing Brick Linings in D-stage Bleach Towers with Stainless Steel - Solving an Unpredictable and Costly Problem](#)

## Session 09: Bleaching

Moderator: **Rick Presley**, *Packaging Corporation of America*

- 433 **Peter Hart**, *MWV*; **Carl J. Houtman**, *USDA Forest Products Lab* [Hydrogen Peroxide and Caustic – Dancing with a Dragon while Bleaching](#)

446 **Richard J. Van Fleet**, *Honeywell International*; **Sandra E. Beder-Miller**, *BTG Americas Inc.*; **Steve Padasak**, *Finch Paper*; **Duane Moringred**, *Honeywell International*

[Bleach Load - A New Inline Sensor Based Improvement for Bleach Plant Advanced Control](#)

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458 **Brian N. Brogdon**, *FutureBridge Consulting & Training LLC*

[Stoichiometric Model of Chlorine Dioxide Delignification of Hardwood Kraft Pulps with Oxidants-Reinforced Extraction Effects](#)

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### Session 10: Challenges and Promises of Taking Innovation from Concept to Reality

Moderator: **Mahendra R. Doshi**, *Doshi and Associates*

472 **R. Daniel Haynes Sr.**, *AkzoNobel*

[7\U`Yb\[Yg'UbX'Dfca \]gYg'cZHU\\_\]b\[ =bbcj Uh\]cb'Zfca '7cbWdh'hc'FYU`\]m](#)

482 **Michelle A. Ricard**, *FPInnovations*

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48: **Cesar Basilio**, *Thiele Kaolin Company*

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496 **Carl J. Houtman**, *USDA Forest Products Lab*

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Moderator: **Dan Curry**, *TRC Solutions*

4: 4 **Vetrivel Dhagumudi**, *Layne Christensen Company*

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4; 7 **Ross Elliot**, *Tecumseth Filtration*

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537 **Troy Runge**, *Wisconsin Bioenergy Initiative*

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554 **Camila Sarto**, **Francides Silva Junior**, *University of Sao Paulo*

[Effect of aqueous pre-treatment in conventional Kraft pulping of Bambusa vulgaris](#)

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568 **Thomas Evans**, *CEO of Training Logic Inc.*

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57: **Honghi Tran**, *University of Toronto*

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594 **Aino Johanna Leppanen**, *Tampere University of Technology*; **Erkki Valimaki**, *Metso Power Oy*; **Antti Oksanen**, *Tampere University of Technology*; **Honghi Tran**, *University of Toronto*

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5: 7 **Reza Karami**, *University of Toronto*

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5; 8 **Timothy Scott Hoyt**, *Dresser-Rand*

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636 **Ralph Heymann**, *Siemens AG - Energy Sector*

[Increasing Plant Efficiency by Upgrading Steam Turbines](#)

643 **Peter Gianonatti**, *GE Energy - Power Generation Services*

[Process Changes Driving Steam Turbine and Generator Re-Optimization and Upgrades](#)

657 **Robert Beck**, *TurboCare*

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[Impact of hardwood species features on delignification rate and carbohydrate degradation](#)

683 **Raymond Francis**, *ESPRI*

[Quantification of LC Complexes in Hardwood Pulps](#)

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6: 3 **Harald G. Grossmann**, *Dresden University of Technology*

[Adsorption Deinking – a New Approach for Higher Energy Efficiencies in Paper Recycling](#)

6; 5 **Daniel Lee, Jeffery S. Hsieh**, *Georgia Institute of Technology*

[Liquid plasma polymerization process for improved deinkability of pigmented inkjet digital printed paper](#)

### Session 18: Technology and Communication in the Work Place

Moderator: **Emily Tomes**, *Ashland*

**Session 19: Recovery Boiler Deposit Removal**  
Moderator: **Alarick J. Tavares**, *Georgia-Pacific Corporation*

- 6; ; **Amelya Pophali, Honghi Tran**, *University of Toronto* [Flow Visualization of the Interaction between a Sootblower Jet and Heat Transfer Tubes in Kraft Recovery Boilers](#)
- 738 **Danny S. Tandra PhD**, *Clyde Bergemann Inc.*; **Andrew K. Jones**, *International Paper*; **Honghi Tran, Markus Bussmann**, *University of Toronto* [Low Pressure Sootblowing Technology - Underlying principles, current installation update and future direction](#)
- 756 **Ati Manay, Danny S. Tandra PhD**, *Clyde Bergemann Inc.* [Improving the Heat Transfer Efficiency of a Recovery Boiler with the Combination of Energy Balance Monitoring and Targeted Sootblowing - A Case Study](#)

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Moderator: **Andrew Garner**, *Andrew Garner and Associates Inc.*

- 764 **Christian B. Thompson, Christopher B. O'Grady, Douglas L. Singbeil, Neville Stead**, *FPInnovations* [The Corrosion Resistance of Stainless Steels in Weak, Hot Sulphuric and Sulphurous Acid Environments Applicable to the Pre-Hydrolysis of Biomass](#)

- 778 **James T. Keiser, Michael Howell, Raynella M. Connatser, Samuel A. Lewis Sr., Oak Ridge National Laboratory** [Corrosivity And Composition Of Raw And Treated Pyrolysis Oils](#)

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- 788 **Peter W. Hart, John D. Andrews, MWV** [The Cost of Improving Pulp Yield](#)
- 7: 6 **Peter Drew, Bastech, LLC; Brian N. Brogdon, FutureBridge Consulting & Training LLC** [Improved Kraft Pulping of Eucalyptus with a Multi-functional Amphiphilic Digester Additive](#)
- 7; 5 **Tiago E.S. Segura, University of Sao Paulo; Francides Gomes Da Silva Jr., CELPAV; Juliana Santos, Jari Celulose; Marina Zanão, University of Sao Paulo** [Kraft Pulping of the Main Hardwoods used around the World for Pulp and Paper Production](#)

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Moderator: **Thanh Trung, FITNIR Analyzers Inc.**

- P IC **Jim Frederick, Table Mountain Consulting, LLC** [Minimizing Sodium Sulfate - Sodium Carbonate Fouling in Black Liquor Evaporators and High Solids Concentrators](#)
- 823 **Honghi Tran, University of Toronto** [Formation of Pirssonite in Green Liquor Handling Systems](#)

838 **John H. Cameron, Casey Frank Kick**, *Western Michigan University*

[Causticizing as a Liquid Film Controlled Reaction](#)

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P IC **Keila Hand**, *Paper and Packaging, World Wildlife Fund*

P IC **Edward Krasny**, *Manager Sustainable Forestry Programs, Kimberly-Clark Corporation*

P IC **Adam Miklos**, *Environmental Program Manager, International Paper*

P IC **Rebecca Knijnik**, *Sustainability Coordinator, Suzano Pulp & Paper*

P IC **David B. Struhs**, *Vice President of Sustainability, Domtar*

**Session 25: Flow Accelerated Corrosion Workshop**  
Moderator: **Margaret E. Gorog**, *Weyerhaeuser Company*

85; **Ronald Lansing**, *M&M Engineering Associates Inc.*

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876 **Norris Johnston**, *Ashland Hercules Water Technologies*

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884 **Margaret E. Gorog**, *Weyerhaeuser Company*

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**Session 26: Innovations in Pulp Mill Operations**  
Moderator: **Brian N. Brogdon**, *FutureBridge Consulting & Training LLC*

895 **Sylvain Gendron**, *FPIinnovations*

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8; 5 **Todd Bolton, Lloyd A. Lobo**, *Ashland Hercules Water Technologies*

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929 **Kirsten Maki**, *FPIinnovations*; **Kouisni Lamfeddal**, *FPIinnovations - Pulp & Paper Division*

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Moderator: **Ashok Jain**, *NCASI*

938 **Amy Marshall**, *URS Corporation*

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948 **John La Fond**, *Jansen Combustion and Boiler Technologies, Inc.*

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958 **Mike Budin**, *TRC Environmental Corporation*

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968 **Steve Jaasund**, *A.H. Lundberg Associates*

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976 **John Joyce**, *Sage Environmental*

[6c\]'Yf'A 57H!'DUfh\]W`UhY`9a \]gg\]cb  
7cbhfc`8Yj \]Wg'UbX`GhfUH\[ \]Yg](#)

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982 **Shawn Berg**, *Hydro-Thermal Corp.*

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987 **Jack Williamson**, *Green Bay Packaging Inc.*; **Stephen Baron**, *Ashland Inc.*; **Adebola Adedire**, *Ashland Water Technologies*

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994 **James R. Keiser**, *Oak Ridge National Laboratory*; **Douglas A. Singbeil**, **Laurel A. Frederick**, *FPInnovations*; **William B.A. Sharp**, *SharpConsultant*

[Performance Of Alternate Superheater  
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9: ; **Joseph Meyer**, **Preet Singh**, *Georgia Institute of Technology*

[Superheater Corrosion – Role of  
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: 24 **Tommy Sand**, *Sandvik Materials Technology*; **Douglas L. Singbeil**, *FPInnovations*; **Urban Forsberg**, *Sandvik*

[Sanicro 67/4L7 a new composite tube  
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Moderator: **R. Daniel Haynes Sr.**, *AkzoNobel*

- : 2; **Allan Jensen**, *A.H. Lundberg Systems Limited*      [Methanol Purification System](#)
- : 39 **Adriaan VanHeiningen, Joseph M. Genco, Ravikant Patil**, *University of Maine*      [Cleavage of acetyl groups from northeast hardwood for acetic acid production](#)
- : 57 **Per Tomani**, *Innventia AB*      [Lignin Removal From Different Black Liquors](#)

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- : 66 **Anthony C. Schamel**, *Resource Harvesters Inc.*      [Introducing the Sludge Conversion System](#)  
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- : 82 **Mike Nicoloro**, *President of Fuss and O'Neill Energy Alternatives*      [Natural Gas Supply Considerations](#)



: 8; **Nathan Schindler**, *Combustion Components Associates Inc.*

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:: 2 **Cebers Gomez**, *Nano Dispersions Technologies*

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Moderator: **Paul Glogowski**, *Metso Paper USA*

::; **Ruth Albright**, *Synterra*; **Nancy Hoffman**, *Equipment Reliability Solutions LLC*

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; 54 **Paul Glogowski**, *Metso Paper USA*

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