

Sunday, August 2

4:00-5:30 **COFE Executive Committee Meeting**

6:00-9:00 **Welcome Reception**

Monday, August 3

8:30-10:00 **Welcome**

State of the Forestry and Wood Products Sectors
in Montana Carmen Murrill

Frictionless Forestry: Why Applied Research
Struggles to Translate into Practice Steve Bick

10:00-10:30 Break

10:30-noon **Overview of conference topics**

Optimization and AI: What Actually Works and
What Are the Trends in Forest Operations
Planning and Engineering René Zamora-Cristales

Management of Forest Roads in the Province of
Quebec: A Review of Challenges and Solutions Shuva Gautam

What drives feller-buncher productivity? A
metanalysis key factors identification and a
predictive model Rafael O. Brown | Mathew F. Smidt
| Nathaniel M. Anderson

Everything Everywhere All at Once: Landscape-
scale cross-boundary forest operations Nathaniel Anderson

noon-1:00 Lunch

1:30-3:00 **A1: Interactions between wood properties and operations**

Automated Deep Learning-Based Log Cross-
Section Ring Characterization in Ponderosa Pine Tzu-I Liao | Woodam Chung |
Laurence Schimleck

Occlusion Rate and Defect Core Determination
in Pruned Loblolly for Clear Wood Production Paityn Matecki | Daniel DeArmond

Relating Log Cross-Section Ring Attributes to
Lumber Mechanical Properties for Effective On-
Site Log Sorting Tzu-I Liao | Woodam Chung |
Michelle Jayawickrama | Lech
Muszyński | Laurence Schimleck

On-Site Prediction of Knot Characteristics from
Harvester-Derived Stem Diameter Profiles Taehyung Kim | Woodam Chung |
Lucas Wells

A2: Forest management systems

Effects on harvesting costs and landowner
revenues when introducing shelterwood
management Lars Eliasson | Anders Rowell

Timber Harvesting Challenges on Small Family
Forests in Northern Minnesota Charlie Blinn

	Understanding Virginia's Family Woodland Owners Management Decisions	Emma D. Busteed Scott M. Barrett Jennifer Gagnon Shane Furze
	An Evaluation of Pruning Time Across Thinning Treatments in a 15-Year-Old Loblolly Pine Plantation	Daniel DeArmond Kevin Boston Segar Chhetri Matthew Pelkki
3:00-3:30	Break	
3:30-5:00	B1: Volume estimation	
	Developing Supply Curves for Woody Biomass in Northwestern California	Jonathan Gucek Hunter Harrill et al.
	From Stem Scan to Stand Estimate: A Smartphone-Based Timber Cruising Application	Heechan Jeong Heesung Woo Taejin Kim Jiyeon Ryu
	ForestStruct3D: A Newly Developed AI-Based Tool for Forest LiDAR Analysis with an Embedded Tree Segmentation Model	Jiyeon Ryu Heesung Woo Taejin Kim Heechan Jeong
	Calculating the Volume of Roundwood Piles Under Cranes Utilizing UAS	Prakash Ojha Marissa Jo Daniel et al.
	B2: Steep Slope & Tethered Systems	
	Productivity analysis of single-stem helicopter logging operations in coastal British Columbia	Omar Mologni Rosalia Jaffray Quinn Kenny et al.
	Production Studies of Steep Slope Harvesting Machines in Northern California	Bridger Paradis Hunter Harrill Jeffrey Kane Han-Sup Han
	Winch-Assist Harvesting in Appalachia: Balancing Soil Impacts and Logging Productivity	Dylan Lang Ben Spong Curt Hassler Mathew Smidt
	Productivity Analysis of Shotgun Cable Yarding	Hunter Harrill
	Dinner on own	

Tuesday, August 4

8:30-10:00	C1: Slash treatment and site preparation	
	Operational Efficiency and Ecological Effects of Forestry Mulching in Alabama	Hannah Mayo
	Analyzing the productivity and cost of slash management from a cut-to-length harvesting system	Tucker Herbert Rafael Brown Jeffrey Halbrook Nate Anderson Han-Sup Han
	Rethinking slash disposal: productivity and cost of carbonizing logging residues in BC	Adelin Nicorescu Omar Mologni Dominik Roeser
	Operational Feasibility of Heavy-Lift Drone-Assisted Seedling Delivery for Steep-Slope Reforestation	Taejin Kim Heesung Woo Heechan Jeong Jiyeon Ryu Jeong Ho Kim

C2: Environmental impacts & BMPs

Evaluating the Effectiveness of Georgia's Forestry Stream Crossing BMPs	Emma Merritt M. Chad Bolding Joseph L. Conrad IV et al.
Categorizing Rutting Following Thinning in Loblolly Pine Stands in the US South	J. Tyler Patton Joseph L. Conrad IV et al.
Evaluating Plantation Performance in Restoring Coal-Mined Lands through Soil Erosion and Ground Cover Analysis	Ashmita Bhandari Dr. Manisha Parajuli
Spatial patterns of residual tree damage across trail designs and harvest intensities in mechanized CTL	Bibek Bhandari Shuva H. Gautam

10:00-10:30 **Break**

D1: Advanced technologies

Real-Time Implementation of Digital Forest Restoration Prescriptions Using Computer Vision and LiDAR Stem Maps	Woodam Chung Lucas Wells Lingbo Dong Heesung Woo
Satellite Teleoperation for Resilient Remote Forestry Delimiting Operations in Canada	Maxime Vaidis Eric R. Labelle Philippe Giguère
Performance Assessment of Practical Low-Cost GNSS RTK Under Forest Conditions	Taehyung Kim Woodam Chung Heesung Woo
Application of Advanced Technologies in Forestry: Opportunities Operational Integration and Practical Challenges	Heesung Woo Taejin Kim Heechan Jeong Jiyeon Ryu Suhas V. Sumukh Jacob A. Webb Sun Eun Choi

D2: Supply chains

Assessment of the Harvesting Capacity for Conducting Forest Fuel Reduction Treatments in Idaho and Oregon	Jessie McCullough M. Chad Bolding Joseph L. Conrad IV et al.
Advanced Supply Chain Engineering to Support Fuel Treatment and Forest Restoration	Jinghan Zhao Jingxin Wang Nate Anderson
Assessing Fine Particulate Matter Emissions and Regulatory Impact on Alabama's Forest Industry	Manisha Subedi Marissa Jo Daniel et al.
Innovation in Timber Harvesting in the U.S. South: The Opportunity for CTL	Timothy R. Miller M. Chad Bolding Joseph L. Conrad IV et al.

noon-1:45 **Lunch and COFE business meeting**

E1: Ground-based harvesting systems

4D Simulation of Cut-To-Length Harvesting Using Discrete-Event Simulation and BIM	Murat Ozmen Woodam Chung
Evaluating the Productivity and Cost of Salvage Logging with Whole-Tree Systems Following Hurricane Helene	Onyinye P. Choko Joe L. Conrad IV et al.

SkidPC Online: A Web-Based Modernization of a Ground-Based Timber Harvesting Decision Support Tool	Ben Spong
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Long-Term Economic Impacts of Bladed Skid Trails Compared to Competing Systems in Appalachia	M. Berry R. Chewing S.M. Barrett
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E2: Improving safety of forest operations

Further Extensions of Synthetic Rope Technology	John Garland Steve Pilkerton John Sessions et al.
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Use of the Android Team Awareness Kit (ATAK) to Increase Situational Awareness and Improve Logging Safety	Robert F. Keefe Eloise G. Zimbelman
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Reducing Injury Risk in Timber Felling: A Multi-Phase Evaluation of Exoskeletons	Allen Chan Mina Salehi Woodam Chung et al.
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3:30-4:00 **Break**

4:00-5:00 **E1: Data science to improve forest operations**

IMU-based activity recognition for forestry loaders: toward automated detection	Adelin Nicorescu Omar Mologni Dominik Roeser
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Optimization of Harvest Unit Layout for Tethered Cut-To-Length Thinning Operations	Murat Ozmen Woodam Chung
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Machine learning-based forecasting of felling productivity in Western Canada	Stephanie Bron Omar Mologni Dominik Roeser
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E2: Transportation

Development and validation of GATES: a tool to estimate log truck costs in the US South	Jack Derochers Joseph L. Conrad IV M. Chad Bolding et al.
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Are Trees Heavier Today? Re-evaluating 1974 Transportation Weight Limits	Mandira Pokharel Marissa Jo Daniel et al.
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Developing an optimized trucking model to improve timber transportation efficiency cost and capacity	Bandana Subedi Joseph L. Conrad IV et al.
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6:00-9:00 **Conference dinner and awards banquet**

Wednesday, August 5

8:00-5:00 **Field tour of active forest operations**