Only the longest-running Wheel/Rail Interaction Conference offers THREE industry-leading railroading events back-to-back in ONE location!

**JUNE 18, 2019**

**RAIL TRANSIT SEMINAR**

The *Rail Transit Seminar* is devoted to examining wheel/rail, vehicle/track interaction on rail transit systems. This cross-disciplinary seminar will include presentations from experts in vehicle/track dynamics, noise and vibration, wheel/rail profile design and maintenance, and friction management. Join a unique group of transit professionals, researchers and suppliers at this seminar to examine recent developments in research and technology, participate in lively discussion and gain a better understanding of the complex interaction at the rail transit wheel/rail interface.

**JUNE 19, 2019**

**PRINCIPLES COURSE**

“Principles of Wheel/Rail Interaction” course is an intensive, full-day course that will provide in-depth examination of the primary aspects of wheel/rail, vehicle/track interaction. Drawing from both theory and practical application, the course will cover contact mechanics, vehicle suspension, wheel set curving, track geometry, friction management, wheel/rail profiles and more—all the elements that are required to promote a more complete understanding of vehicle/track dynamics and wheel/rail interaction.

**JUNE 20-21, 2019**

**HEAVY HAUL SEMINAR**

The *Heavy Haul Seminar* is devoted to examining wheel/rail, vehicle/track interaction on rail freight and shared-track passenger systems. We bring together track and mechanical users, researchers and suppliers in a positive, educational setting like no other in the industry. The latest information on new and existing technology, and the ways in which it is being used to improve wheel/rail interaction on freight and passenger railways will be presented by some of the best minds in railroading.

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Findings from the NYCT - FTA Wheel/Rail Analysis Project
Eric Magel, NRC, Canada

21st Century Demand, 19th Century Infrastructure: Future Proofing the Wheel-Rail Interface
Andy Vickerstaff, London Underground

Evaluating Comprehensive Track Inspection Vehicles for Transit Operations
Matthew Dick, ENSCO Rail, Inc.
Bob Coakley, ENSCO Rail, Inc.

Validating Vehicle Dynamics Simulation Models
Dion Church, SNC-Lavalin Inc.

Magic Wear Rate – Wiener Linien, Vienna, Austria
Paul Mittermayr, Bureau of Applied Mechanics and Mathematics

FOCUS TOPIC — EVOLVING RAIL GRINDING & MILLING PROGRAMS
Planning and Executing a Rail Grinding Program for Transit Systems
Roger Luedke, Loram Maintenance of Way, Inc.
Charles Rudeen, Loram Maintenance of Way, Inc.

Creating a Grinding Map for Transit
Wyman Jones, LA Metro

Wheel/Rail Interface Study on Light Rail System
Shankar Rajaram, Sound Transit

Rail Milling in North America — A First Look
Richard Stock, Rhomberg Sersa/LINSINGER

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Wheel-Rail Contact Mechanics
Kevin Oldknow, Simon Fraser University, Organizing Chair — Principles Course

Track Structures, Components and Geometry
Gary Wolf, Wolf Railway Consulting, LLC

Vehicle-Track Interaction & Dynamics
Rob Caldwell, NRC, Canada

Maintaining Wheel-Rail Interface Conditions
Eric Magel, NRC, Canada

Wheel-Rail Damage Mechanisms
Richard Stock, Rhomberg Sersa/LINSINGER

Vehicle-Track Measurement Technologies
Matt Dick, ENSCO, Inc.

Vehicle Types, Suspensions & Components
Elton Toma, NRC, Canada

Effects of Super-Elevation and Speed on Vehicle Curving
Brad Kerchof, Norfolk Southern

KEYNOTE ADDRESS
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Vehicle Suspension Systems: Evolutionary Design
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Joe Kalousek, NRC, Canada (retired); Rob Caldwell, NRC, Canada

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Understanding Rolling Contact Fatigue: What Can be Done to Lower Risks?
Eric Magel, NRC, Canada

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Mike Roney, Iron Moustache Consulting; Dan Hampton, CSX

Rail Flaw Detection/Surface Crack Measurement: Where Technology is Heading
Troy Elbert, Herzog Services, Inc.

Automated Vehicle and Track Inspection Systems: Technology and Analysis
Todd Snyder, Amsted Rail

Turnout Design: Wheel/Rail Contact, Kinematic Geometry and Maintenance
Dave Davis, Transportation Technology Center Inc.

Derailment Prevention: From Causes to Cures
Gary Wolf, Wolf Consulting; Brad Kerchof, Norfolk Southern

Moving to Performance-Based Automated Track Inspection: The Benefits and Hurdles Ahead
Frank Moffitt, BNSF; Michael Mischke, BNSF

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