

# P3

2009 PAVEMENT PERFORMANCE  
PREDICTION SYMPOSIUM

*Validation of Predictive  
Models Using Full-Scale &  
Field Pavement Performance*

Sponsored by **Federal Highway Administration**  
Organized by **Western Research Institute**

Washakie Center Rendezvous Room, University of Wyoming  
July 15-17, 2009 • Laramie, Wyoming

Wednesday, July 15

- 1:30 pm            **Welcome and Introduction**  
Stephen L. Salmans *Western Research Institute* and  
Tom Scarpas *TU Delft*
- 1:40–2:25        **The Challenges of Validating the Performance of  
Materials in Pavements**  
Chris Williams *Iowa State University*
- 2:25–3:10        **MnROAD Phase II and Validation of Predictive Models  
for Nonconventional Asphalt Mixtures**  
Mihai Marasteanu *University of Minnesota* and  
Timothy Clyne *Minnesota DOT*
- 3:10–3:30        Break
- 3:30–4:15        **Quantifying the Benefits of Polymer Modified Asphalt**  
David Johnson *Asphalt Institute*
- 4:15–4:45        Discussion of Research Needs—Tom Scarpas *TU Delft*

Thursday, July 16

- 8:00–8:45 am    **Data Collection and Performance Monitoring of an  
Instrumented Flexible Pavement Section on I-35**  
Pranshoo Solanki, Musharraf Zaman (presenter) and  
K.K. Muraleetharan *University of Oklahoma*
- 8:45–9:30        **Accounting for Age Hardening and Climate Variability  
in Field Studies of Rutting of HMA Pavements**  
Don Christensen *Advanced Asphalt Technologies*
- 9:30–10:15      **Asphalt Pavement Response and Fatigue Performance  
Prediction with Viscoelastic Continuum Damage  
Modeling Approach**  
Shane Underwood *North Carolina State University*
- 10:15–10:30     Break
- 10:30–11:15     **An Integrated Database for Validating Pavement  
Performance Models**  
Jorge Prozzi *University of Texas*
- 11:15–12:00     **Development of a Damage-Based Phenomenological  
Fatigue Model for Asphalt Pavement**  
Haifang Wen *Washington State University*

Thursday, July 16 continued

- 12:00–1:15 pm Lunch
- 1:15–2:00 **MEPDG - Cost Effectiveness of Materials Testing & Local Calibration**  
Harold Von Quintus *Applied Research Associates, Inc.*
- 2:00–2:45 **Calibration of Fracture Predictions to Observed Reflection Cracking in Asphalt Overlays**  
Robert Lytton *Texas A&M University*
- 2:45–3:05 Break
- 3:05–3:55 **Making Connections between Laboratory Permanent Deformation and Full Scale Rutting**  
Jack Youtcheff and Nelson Gibson *Federal Highway Administration*
- 3:55–4:30 Discussion of Research Needs—Tom Scarpas *TU Delft*

Friday, July 17

- 8:00–8:45 am **Validation of Mechanistic Pavement Design Principles Based on Studies at the NCAT Test Track**  
Richard Willis *NCAT*
- 8:45–9:30 **Title**  
Dallas Little *Texas A&M University*
- 9:30–9:50 Break
- 9:50–10:35 **Investigation of Thermal Cracking at a Test Site near Rochester, Minnesota**  
Mike Farrar *Western Research Institute*
- 10:35–11:20 **Development and Field Validation of NCHRP 1-42A Top-Down Cracking Model**  
Reynaldo Roque *University of Florida*
- 11:20–11:50 Discussion of Research Needs—Tom Scarpas *TU Delft*

**Symposium Presentations will be posted at  
[www.petersenasphaltconference.org](http://www.petersenasphaltconference.org)**

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I N S T I T U T E

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