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In the chapters I to V you can find all accepted papers for each topic, not only the papers which are presented orally. At the beginning of the chapters you find a list of all papers. The numbers of the papers are the same as in the preliminary programme.



## 12 th International Road Weather Conference 2004 Bingen Germany

### PRELIMINARY PROGRAMME

#### Wednesday, June 16<sup>th</sup> 2004

- 10:00 h Registration (up to 13:00 h), Opening of the Exhibition
- 13:00 h Opening of the 12<sup>th</sup> International Road Weather Conference
- (0-1) Keskinen (FIN): Road Weather 30 Years – Hindsight, Insight, Foresight
- Session I: Climatology, Weather Conditions**
- (I-1) Liechti (CH): Industrial Snow
- (I-2) Miyoshi et al (JP): Meteorological Factors associated with Avalanches in the Lake Shikotsu Area and their application to Road Management
- (I-3) Sulan (CZ): Experiences with Hoar Frost and its Monitoring in Western Bohemia
- (I-4) Takahashi et al (JP): Using Taxi GPS to gather High-Quality Traffic Data for Winter Road Management Evaluation in Sapporo
- 15:00 h Coffee Break
- 15:30 h **Session II: Forecast Methods and Accuracy**
- (II-1) Grimbacher/Schmid (CH): Nowcasting nocturnal cloudiness with an ultra-dense Road Weather Measurement Network
- (II-2) Gjertsen et al (N): Monitoring Precipitation Intensity and type-combined Use of Radar and Temperature Measurement
- (II-3) Skuthan (CZ): The Significance of the Severe Events Warning Service in Relation to the classic Methods of Road Meteorology
- (II-4) Pasero et al (I): NEMEFO – Neural Meteorological Forecast
- (II-5) Hopwood (GB): Improvements in Road Forecasting Techniques and their Applications
- (II-6) Rohn/Raatz (D): Providing an optimized Dataset for Road Weather Forecasts
- (II-7) Sass/Petersen (DK): A coupled automatic Road Weather Forecasting System
- 17:15 h End of Session
- 17:30 h SIRWEC Executive Committee Meeting (only for Members)
- 19:00 h Apéro, Welcome Buffet

#### Thursday, June 17<sup>th</sup> 2004

- 8:30 h **Continuation Session II: Forecast Methods and Accuracy**
- (II-8) Chapman/Thornes (GB): Road Ice Prediction using Geomatics
- (II-9) Thornes/Cavan/Chapman (GB): The Use of GIS and Icemiser to predict Winter Road Surface Temperatures in Poland
- (II-10) Badelt/Moritz (D): Use of Data on Road Condition and Weather for Winter Maintenance
- 9:10 h **Session III: Sensors and Equipment**
- (III-1) Deckert/Hauf (D): An experimental Study of Drying-Up Paved Surfaces
- (III-2) Lahtinen/Kantonen (FIN): Finish Road Weather Camera System
- (III-3) Paulsen/Schmokel (N): Laser Road Surface Sensor LRSS
- (III-4) Badelt/Seliger (D): Testing Sensors for Road Weather Systems
- 10:10 h Coffee Break

- 10:40 h     **Session IV: Presentation and Interpretation of Road Weather Information Data**  
 (IV-1)     Kagaya/Kajiya/Yamagiwa (JP): Smart Sapporo Snow Information Experiment  
 (IV-2)     Sigurdsson (DK): Flow and Presentation of Road Weather Data and Winter Maintenance Activities on the Internet  
 (IV-3)     Schmid/Mathis (CH): Validation of Methods to detect Winter Precipitation and retrieve Precipitation Type  
 (IV-4)     Eriksson/Johansson (S): Winter Weather and Municipal Winter Road Maintenance  
 (IV-5)     Iivanainen/Pettersson (FIN): Quality for Road Weather Information System – Applying ISO 9001  
 (IV-6)     Toivonen/Kantonen (FIN): Supporting IT System for Road Weather Quality Measurement
- 12:15 h     Lunch
- 13:45 h     **Parallel Workshops** (every participant can choose one workshop)  
 Workshop 1:   What kind of forecast products are needed by the road winter maintenance organizations?  
 Workshop 2:   What kind of developments are needed to improve road weather forecasting?  
 Workshop 3:   What kind of road weather data do maintenance people and meteorologists need?  
 Workshop 4:   How can road weather forecasts be used in practical winter maintenance decisions?
- Including Coffee Break at about 15 h
- 17:00 h     End of Workshops
- 17:30 h     Departure of Rhine River Tour to Loreley with Conference Dinner

**Friday, June 18<sup>th</sup> 2004**

- 8:30 h     **Session V: Winter Maintenance: Management Systems, Methods and Policy**  
 (V-1)     Cypra (D): Optimization of Winter Maintenance on heavily travelled Freeways  
 (V-2)     Yamada/Sugimura/Maruyama (JP): Research on the Level of Winter Road Management  
 (V-3)     Hanke (D): Construction of a Winter Maintenance Management System for optimized Controlling of Winter Maintenance Operations  
 (V-4)     Devaud (CH): Surface Condition Management  
 (V-5)     Jonasson/Palsson (ICE): Icelandic Winter Maintenance Management System  
 (V-6)     Nixon/Stowe (USA): Operational Use of Weather Forecasts in Winter Maintenance – A Matrix based Approach  
 (V-7)     Pisano/Stern/Mahoney (USA): The U.S. Federal Highway Administration Winter Maintenance Decision Support System MDSS Project
- 10:00 h     Coffee Break
- 10:30 h     **Reports from the Workshops**  
 Discussion of the Results of the Workshops
- 12:00 h     **Closing of the Conference and Exhibition**  
 Venue to the 13<sup>th</sup> SIRWEC Conference
- 14:00 h     **Excursion**  
 Rudesheim on Rhine: Sightseeing Tour and Wine Tasting

(x-x) = Number of presentation/paper

# History of SIRWEC Conferences

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<b>1984</b>	<b>1<sup>st</sup> Conference</b>	<b>The Hague</b>	<b>Netherlands</b>
<b>1985</b>	<b>2<sup>nd</sup> Conference</b>	<b>Copenhagen</b>	<b>Denmark</b>
<b>1986</b>	<b>3<sup>rd</sup> Conference</b>	<b>Tampere</b>	<b>Finland</b>
<b>1988</b>	<b>4<sup>th</sup> Conference</b>	<b>Florence</b>	<b>Italy</b>
<b>1990</b>	<b>5<sup>th</sup> Conference</b>	<b>Tromsö</b>	<b>Norway</b>
<b>1992</b>	<b>6<sup>th</sup> Conference</b>	<b>Minneapolis</b>	<b>USA</b>
<b>1994</b>	<b>7<sup>th</sup> Conference</b>	<b>Seefeld</b>	<b>Austria</b>
<b>1996</b>	<b>8<sup>th</sup> Conference</b>	<b>Birmingham</b>	<b>UK</b>
<b>1998</b>	<b>9<sup>th</sup> Conference</b>	<b>Luleá</b>	<b>Sweden</b>
<b>2000</b>	<b>10<sup>th</sup> Conference</b>	<b>Davos</b>	<b>Switzerland</b>
<b>2002</b>	<b>11<sup>th</sup> Conference</b>	<b>Sapporo</b>	<b>Japan</b>
<b>2004</b>	<b>12<sup>th</sup> Conference</b>	<b>Bingen</b>	<b>Germany</b>
<b>2006</b>	<b>13<sup>th</sup> Conference</b>	<b>Sestriere</b>	<b>Italy</b>

# Sponsors of SIRWEC 2004

Because of SIRWEC is a free organization the execution of the conferences is only possible with the technical and financial support of sponsors.

Here we must give a great thank to all sponsors supporting the 12<sup>th</sup> SIRWEC Conference 2004.

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Main Sponsor of the SIRWEC 2004 is Co. Boschung:

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