



20th International Zurich Symposium on Electromagnetic Compatibility

WS-4 on Friday, 16 January

Title workshop	EMC of Railway Systems, a new European Approach
Organizer's name	H.W.M. (Erwin) Smulders and Prof. Sergio Pignari
Organizer's affiliation	Movares Nederland B.V., Utrecht, The Netherlands

The workshop will focus on the results obtained by the Railcom project in the last three years. The RAILCOM project has carried out research, testing, modelling and validation activities dedicated to identify, access and specify limit values, assessment and verification methods for the electromagnetic interference between the railway vehicles, electric traction power supply and the principal train detection and radio-communication systems. The Railcom project is a STREP, funded by the EU within the scope of 6th framework. In combination with the results of the Railcom project, results obtained University of Pisa & Trenitalia in this area will be presented, in order to complete the overview of the latest developments in the field of Railway EMC.

Detailed program

8.00 h.

- Introduction by the chairpersons of the contents of the workshop

8.10 h.

- Karel Beneš, “The relation between RAILCOM and CENELEC”, by Karel Beneš, Gert-Jan van Alphen

8.25 h

- Discussion

8.30 h

- Markus Meyer, “Influence of infrastructure characteristics on harmonic currents emitted by trains”, by Markus Meyer

9.00 h.

- Discussion

9.05 h.

- V. Deniau, R. Adriano, S. Dudoyer, N. Ben Slimen, J. Rioult, P. Massy, B. Meyniel, M. Berbineau, A. Raux, H. Smulders, “Study of the immunity of the GSM-R in front of the electromagnetic disturbances present on moving trains”.

9.30 h.

- Discussion

9.35 h.

- Coffeebreak

10.05 h.

- Sami Barmada, "Feasibility study of Power Line Communications for data-transmission on UIC cables onboard trains" by S. Barmada, A. Gaggelli, P. Masini, A. Musolino, M. Tucci, R. Rizzo.;

10.35 h.

- Discussion

10.40 h.

- Andrea Mariscotti, “Modelling of the Railway System: Low and High Frequency”, by Andrea Mariscotti, Maurizio Vanti

11.10 h.

- Discussion

11.15 h.

- Maurice Janssen, “A comparison between simulations and measurements; resonance studies of the Portuguese Railway System”, M.F.P. Janssen, P.G. Gonçalves, R.P. Santo, H.W.M. Smulders;

11.45 h.

- Discussion

11.50

- Closing discussion of workshop

12.00