

6th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes

Final Program

Sunday 10 October 1999

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| 17 h – 22 h | Registration and informal Reception An informal reception desk will be provided downtown on Sunday 10 October, starting 5 p.m. at the "Office du Tourisme of Rouen facing the Cathedral of Rouen. |
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Monday 11 October 1999

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| 8h | Coffee break permanent and registration |
| Session 1 a : Model Evaluation Grand Amphi Chairman : Dr. D. Carruthers, C.E.R.C. United Kingdom. | |
| 9h–9h45 | Opening addresses by Prof A. Coppalle, Chairman of the Conference, Prof . Michel Ledoux, President of the CORIA's Laboratories |
| 9h45 – 10h05 | 1 - QUALITY ASSURANCE OF URBAN DISPERSION MODELS M. Schatzmann, B. Leitl, University of Hamburg, Germany. <i>Abstract proceedings: page 7</i> |
| 10h05 – 10h25 | 98- URBAN AIR QUALITY MODELLING IN ELEVEN EUROPEAN DOMAINS P. Suppan, A. Skouloudis, European Commission, Joint Research Centre, Italy <i>Abstract proceedings: page 35</i> |
| 10h25 – 10h50 | Coffee break |
| 10h50 – 11h10 | 77 - METHODOLOGY OF MODEL TESTING AND APPLICATION TO DISPERSION SIMULATION ABOVE COMPLEX TERRAIN E. Canepa * °, P.J.H. Builtjes * #, IMAU, Utrecht University, The Netherlands. ° INFM, Genova University, Italy - # TNO-MEP, Apeldoorn, The Netherlands. <i>Abstract proceedings: page 31</i> |
| 11h10 – 11h30 | 105 - MODEL VALIDATION KIT - RECENT DEVELOPMENTS H.R. Olesen, National Environmental Research Institute (NERI), Roskilde, Denmark. <i>Abstract proceedings: page 39</i> |
| 11h30 – 11h50 | 38 - EFFECTS OF CONCENTRATION FLUCTUATIONS ON STATISTICAL EVALUATIONS OF CENTERLINE CONCENTRATION ESTIMATES BY ATMOSPHERIC DISPERSION MODELS J. S. Irwin, National Oceanic and Atmospheric Administration, USA. <i>Abstract proceedings: page 19</i> |
| 11h50 – 12h10 | PRESENTATION OF THE FIFTH FRAMEWORK PROGRAM 1998 – 2002 OF THE EUROPEAN COMMUNITY P. Vallet, R & D, C.E.E. DG XII |
| 12h10 – 14h00 | Lunch |

Monday 11 October 1999

| | Session 2a : Air Quality Management ; the EU air quality directive Grand Amphi Chairman : Dr. J. Bartzis, NCSR "Democritos", Greece. | Session 3a : Urban Air Quality Modelling salle d'Examens Chairman : Prof. Dr. E. Genikhovich, Main Geophysical Observatory, Russia. |
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| 14h00 – 14h20 | <p>9 - THE APPLICATION OF THE EULERIAN MODELS FOR AIR QUALITY PREDICTION AND THE EVALUATION OF THE EMISSION CONTROL STRATEGIES IN CANADA</p> <p>J.A. Pudykiewicz & A.S. Kosio, Atmospheric Environment service, Quebec, Canada <i>Abstract proceedings: page 95</i></p> | <p>54 - APPLICATION OF ADMS-URBAN TO A LARGE URBAN AREA : MODEL SENSITIVITY TO SELECTED INPUT PARAMETER.</p> <p>B. Owen, Manchester Metropolitan University, Manchester, U.K. <i>Abstract proceedings: page 149</i></p> |
| 14h20 – 14h40 | <p>43 - PROPOSAL FOR THE CALCULATION OF THE HIGH PERCENTILES OF NO₂ CONCENTRATIONS, NECESSARY FOR THE EXECUTION OF EU DIRECTIVE 1999/30/EC</p> <p>G. Clai*, R. Berkowicz**, I. Düring*, M. Ketzl**, A. Lohmeyer*, N. Moussiopoulos*** and S. Papalexiou***</p> <p>*Ingenieurbüro Lohmeyer, Germany, **National Environmental Research Institute, Denmark, ***Aristotle University, LHTEE, Greece. <i>Abstract proceedings: page 99</i></p> | <p>61 - AN ASSESSMENT OF URBAN VOC EMISSIONS AND CONCENTRATIONS BY COMPARING MODEL RESULTS AND MEASUREMENTS.</p> <p>C. Mensik, B. Bomans, L. Janssen, VITO, Belgium. <i>Abstract proceedings: page 151</i></p> |
| 14h40 – 15h00 | <p>49 - PM10 MAP AND POPULATION EXPOSURE FOR SWITZERLAND</p> <p>J. Heldstab, P. de Haan, INRAS, Switzerland. P. Fillinger, Swiss Agency for the Environment, Forest and Landscape, Bern, Switzerland T. Kunzle, METEOTEST, Bern, Switzerland. <i>Abstract proceedings: page 101</i></p> | <p>107 - EVALUATION OF THE METEOROLOGICAL DATA REQUIREMENTS OF ADMS-URBAN FOR MODELLING POLLUTION IN NORTHAMPTON, ENGLAND.</p> <p>C. Arciszewska, J. McClatchey University College Northampton, U.K. <i>Abstract proceedings: page 155</i></p> |
| 15h00 – 15h20 | <p>57 - DETERMINATION OF COMPLIANCE WITH UK AND EU AIR QUALITY OBJECTIVE FROM HIGH RESOLUTION POLLUTANT CONCENTRATION MAPS CALCULATED USING ADMS-URBAN</p> <p>D.J. Carruthers, C.A. McHugh, S.G. Nixon, W. Oates, K. Simms & R.J. Singles, CERC, Cambridge, U.K. <i>Abstract proceedings: page 105</i></p> | <p>113 - MODELING OF CHEMICAL SPECIES REDISTRIBUTION DURING A PHOTOCHEMICAL EPISODE OVER CLERMONT FERRAND REGION</p> <p>N. Audiffren, S. Cautenet, LaMP/CNRS-OPGC, France <i>Abstract proceedings: page 157</i></p> |
| 15h20 – 15h50 | Coffee break | |

Monday 11 October 1999

| | Session 2b : Air Quality Management ; the EU air quality directive Grand Amphi Chairman : Dr. A. Skouloudis, Environment Institute - JRC-Ispira, Italy. | Session 3b : Urban Air Quality Modelling Salle d'Examen Chairman : Dr. B. Sportisse, Ecole Nationale des Ponts et Chaussées, France. |
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| 15h50 – 16h10 | 66 - MODELLING SIMULATION OF ROAD EMISSION ABATEMENT STRATEGIES ON NORTHERN ITALY. G. Finzi & M. Volta, University of Brescia, Italy. <i>Abstract proceedings: page 107</i> | 19 - A METHOD FOR MAPPING THE AIR POLLUTION IN CITIES WITH COMBINED USE OF MEASURED AND CALCULATED CONCENTRATIONS E. Genikhovich, E. Filatova, Alexander Ziv, Main Geophysical Observatory, Russia. <i>Abstract proceedings: page 145</i> |
| 16h10 – 16h30 | 10 - A METHOD OF EVALUATING THE TOPOGRAPHICAL EFFECT ON ATMOSPHERIC DISPERSION USING A NUMERICAL MODEL. Y. Ichikawa, K. Sada, Central Research Institute of Electric Power Industry, Japan. <i>Abstract proceedings: page 97</i> | 35 - EMIAD, FOR EVALUATING ALTERNATIVE SO2/NOX EMISSION REDUCTIONS IN THE ANTWERP REGION DURING AIR POLLUTION EPISODES G.Cosemans, J. Kretzschmar, VITO, Belgium. <i>Abstract proceedings: page 147</i> |
| 16h30 – 16h50 | 73 – ENFORCEMENT OF TRAFIC BANS : THE LESSON OF THE 1ST OCTOBER EXPERIENCE, A FIRST STUDY BASED ON THE AIRPARIF AIR QUALITY MODELLING TOOL. F. Mietlicki, D. Gombert, AIRPARIF, Paris, France. <i>Abstract proceedings: page 109</i> | 85 - AIR POLLUTION MODELLING AS A DECISION SUPPORT SYSTEM: THE EXAMPLE OF ROUEN CITY. A. FRESNEAU & al , ARIA Technologie, France. <i>Abstract proceedings: page 153</i> |
| | Session 1b : Model Evaluation Grand Amphi Chairman : Steven R. Hanna, George Mason University, USA. | |
| 16h50 – 17h10 | 58 - COMPARISON OF MODEL EVALUATION METHODOLOGIES WITH APPLICATION TO ADMS 3 AND US MODELS C.A. McHugh, D.J. Carruthers, H. Higson & S.J. Dyster Cambridge Environmental Research Consultants, UK <i>Abstract proceedings: page 25</i> | |
| 17h10 - 17h30 | 104 - A CONSIDERATION OF THE 'MODEL VALIDATION KIT' (BOOT) AND THE DRAFT ASTM VALIDATION PROCEDURES. N. S Cooper, Mathematical and Scientific Consultants, United Kingdom. <i>Abstract proceedings: page 37</i> | |
| 18h00 – 20 h | Welcome reception : INSA of Rouen Opening adresses Prof. Gilbert TOUZOT, General Manager of the INSA of Rouen, National Institute for Applied Sciences. | |

Tuesday 12 October 1999

| | Session 4a : Model Intercomparison Grand Amphi Chairman : J.G. Kretzschmar, VITO, Belgium. | Session 5a : Street Canyon Models Salle d'Examens Chairman : Dr. P. Mestayer, Ecole Centrale de Nantes, France. |
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| 9h – 9h20 | <p>15- A NEW AIR QUALITY MODELING SYSTEM APPLIED AS REGULATION MODELS Y. Zeng Quan, Nanjing Research Institute of Environmental Protection for Electric Power, China. <i>Abstract proceedings: page 179</i></p> | |
| 9h20 – 9h40 | <p>23 - DETERMINING ANNUAL MEAN CONCENTRATION VALUES IN COMPLEX TERRAIN- AN INTERCOMPARISON OF MODELLING METHODS M. Wichmann-Fiebig, Northhine-Westfalia Environment Agency, Essen, Germany. <i>Abstract proceedings: page 181</i></p> | <p>4 - INFLUENCE OF STABLE ATMOSPHERIC THERMAL STRATIFICATION ON URBAN STREET CANYON REAERATION Stilianos Rafailidis Environmental Research Laboratory, NRCPS "Demokritos", Greece <i>Abstract proceedings: page 219</i></p> |
| 9h40 – 10h00 | <p>86 - COMPARISON BETWEEN FIELD MEASUREMENTS OF 85KR AROUND THE BNFL SELLAFIELD REPROCESSING PLANT AND THE PREDICTIONS OF THE NRPB R-91 AND UK-ADMS ATMOSPHERIC DISPERSION MODELS R A Hill , I Teasdale, I Lowles, N Chambers, C Puxley, T G Parker. Westlakes Scientific Consulting Ltd, Cumbria, USA.</p> | <p>69 – DISPERSION OF POLLUTANTS IN STREET CANYON AND STREET INTERSECTION UNDER TRAFFIC INDUCED FLOW AND TURBULENCE USING LOW-Re k-ε MODEL M. Jicha, J. Katolicky and J. Pospisil Technical University of Brno, Institute of Power Engineering, , Czech republic. <i>Abstract proceedings: page223</i></p> |
| 10h00 – 10h20 | <p>100 - COMPARISON OF TWO DIFFERENT OPERATIONAL MODELS ON COMPLEX TERRAIN IN NEUTRAL FLOW A. Worblewski*, A. Coppalle *Ecole des Mines de Douai, France CORIA – UMR 6614 – CNRS – Université & INSA of Rouen, France. <i>Abstract proceedings: page 191</i></p> | <p>90 - ASSESSING THE INFLUENCE OF NEAR WALL TREATMENT ON THE WIND AND DISPERSION CHARACTERISTICS IN URBAN AREAS. V. Assimakopoulos, J. Ehrhard, N. Moussiopoulos ,G. Theodoridis and H.M. ApSimon Laboratory of Heat Transfer and Environmental Engineering, Greece <i>Abstract proceedings: page 225</i></p> |
| 10h20 – 10h40 | <p>11- EVALUATION OF NEW GENERATION ATMOSPHERIC DISPERSION MODELS D.J. Hall, A.M. Spanton, UK, M. Benett, F. Dunkerley, R.F. Griffiths, UMIST, UK B.E.A. Fisher, University of Greenwich, UK R.J. Timmis, Environmental Agency, UK. <i>Abstract proceedings: page 177</i></p> | <p>97 - ORGANISED AND TURBULENT AIR MOTIONS IN A WIND-TUNNEL MODEL OF STREET CANYON WITH AND WITHOUT MOVING VEHICLES P. Kastner-Klein^{1,2}, E. Fedorovich¹, and M. Rotach² ¹ Institute of Hydromechanics, University of Karlsruhe, Germany ² Department of Geography, Swiss Federal Institute of Technology, Zürich, Switzerland</p> |
| 10h40 – 11h10 | Coffee break | |

Tuesday 12 October 1999

| | Session 1c : Model Evaluation Grand Amphi Chairman : Dr. J. S. Irwin, National Oceanic and Atmospheric Administration, USA. | Session 5b : Street Canyon Models Salle d'Examens Chairman : Prof.. M. Schatzmann, Universitdt Hamburg, Germany. |
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| 11h10 – 11h30 | <p>142 - A FRAMEWORK FOR EVALUATING THE PERFORMANCE OF AIR QUALITY MODELS</p> <p>A. Venkatram, College of Engineering, University of California, Riverside, USA. <i>Abstract proceedings: page 53</i></p> | <p>109 - DEPENDENCE OF STREET CANYON CONCENTRATIONS ON ABOVE ROOF WIND SPEED - IMPLICATIONS FOR NUMERICAL MODELLING</p> <p>M. Ketzel, R. Berkowicz, National Environmental Research Inst. of Roskilde, Denmark W. Müller, A. Lohmeyer, Lohmeyer Consulting Engineers, Germany. <i>Abstract proceedings: page 231</i></p> |
| 11H30 – 11H50 | <p>24 - STUDY OF TURBULENCE AND POLLUTANT DISPERSION UNDER NEUTRALLY AND UNSTABLY STRATIFIED ATMOSHERE USING A SECOND- ORDER EULERIAN MODEL</p> <p>C.H. Liu and D. Y. C. Leung, University of Hong Kong, China. <i>Abstract proceedings: page 15</i></p> | <p>128 - A MODEL FOR THE DISPERSION OF POLLUTANTS IN STREET CANYONS OF ARBITRARY GEOMETRY. A MODEL FOR THE TRANSPORT AND DISPERSION OF POLLUTANTS IN STREET NETWORK</p> <p>L. Soulhac, P. Mejean & R. Perkins, UMR 5509, Ecole Centrale de Lyon, France <i>Abstract proceedings: page 233 235</i></p> |
| 11h50 – 12h10 | <p>122 - USE OF MONTE CARLO UNCERTAINTY STUDIES TO EVALUATE OZONE MODEL RESIDUALS (DIFFERENCES IN OBSERVED AND PREDICTED CONCENTRATIONS)</p> <p>S. R. Hanna, George Mason University, Fairfax,VA USA J. M. Davis, North Carolina State University, Raleigh, NC USA <i>Abstract proceedings: page 51</i></p> | <p>101 – A STREET CANYON MODEL FOR LOW WIND SPEED CONDITIONS</p> <p>A. Coppalle, UMR 614 CORIA, Rouen, France <i>Abstract proceedings: page 229</i></p> |
| 12h10 – 12h30 | <p>143 - UNCERTAINTY ANALYSIS OF MODELLING STUDIES INCLUDED IN AIR QUALITY ASSESSMENTS</p> <p>N. Moussiopoulos, P. Sahn, S. Münchow, ,Aristotle University Thessaloniki, Greece D. Tonnesen**, Norwegian Institute for Air Research, Norway F. de Leeuw***, RIVM, The Netherlands L. Tarrasón**** Norwegian Meteorological Institute, Norway <i>Abstract proceedings: page 55</i></p> | |
| 12h30 – 14h30 | Lunch | |

Tuesday 12 October 1999

Free

14h30 – 18h : Guided tour of the CORIA's Laboratories

14h30 – 17h30 : three special meetings

1 – A technical meeting on model Evaluation Methodology, convened by J. Irwin and H.R. Olesen, addressing the proposal ASTM methodology and the model Validation Kit

2 – A workshop on the Podbielski Street Canyon Modelling exercise convened by A. Lohmeyer.

3 – A meeting of the European topics center on Air Quality (ETC – AQ) convened by N. Moussiopoulos.

Wednesday 13 October 1999

Session 4b : Model Intercomparison

Grand Amphi

Chairman : Prof. N. Moussiopoulos, Aristotle University Thessaloniki, Greece.

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| 9h – 9h20 | 127 – CALPUFF AND SAFE-AIR: COMPARISON AND TESTING AGAINST FIEL EXPERIEMENTS ABOVE HILLY TERRAIN. B. Battaglia, E Canepa and C.F. Ratto, INFM, Genova, Italy. <i>Abstract proceedings: page 193</i> |
| 9h20 – 9h40 | 82 - EVALUATION OF THE ADMS, AERMOD, AND ISC3 DISPERSION MODELS WITH THE KINCAID, INDIANAPOLIS, LOVETT, SWEENEY, AND DUKE FOREST FIELD DATA SETS S. R. Hanna, B. A. Egan, J. Purdum, and J. Wagler, George Mason University, USA. <i>Abstract proceedings: page 187</i> |
| 9h40 – 10h00 | 41 - MESOCOM: An inter-comparison exercise of flow models used for urban air quality simulations P. Thunis, S. Galmarini, G. Graziani, and C. Cuvelier, Environment Institute, JRC Ispra, Italy. <i>Abstract proceedings: page 183</i> |
| 10h00 – 10h20 | 59 - FORECASTING NOX LEVELS IN URBAN AREA USING THREE DIFFERENT DISPERSION MODELS. A.J. Manning and H.N. Webster, UK Meteorological Office, London, U.K. <i>Abstract proceedings: page 185</i> |
| 10h20 – 10h40 | Presentation of the poster session : Prof. A. Coppalle |
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| 10h40 – 12h30h | POSTER SESSION |
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| 12h30 – 14h00 | Lunch |

Wednesday 13 October 1999

SMEDIS Workshop

Salle d'Examen

Chairman : Dr. S. Jagger, Scientific Model Evaluation of dense gas DISpersion Models

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| | 1. Introduction/Overview, structure, objectives of Project., presented by S. F. Jagger |
| 8h35 | 2. The SMEDIS Model Evaluation Protocol, presented by N. C. Daish |
| to | 3. The SMEDIS Database and Validation Exercise presented by B. Carrissimo |
| | 4. Scientific Model Assessments presented by N. C. Daish |
| | 5. Experience of SMEDIS from model developpers presented by A. Halford, J. Wurtz, J. Bartzis, R. Hall |
| 10h35 | 6. Conclusions/Achievements of Project presented by S. F. Jagger |

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| 11h – 12h30 | <p>Round Table Discussion</p> <p>The discussion would centre around the following themes:</p> <ul style="list-style-type: none">✓ What basis is SMEDIS for model evaluation ?✓ What has SMEDIS contributed to the needs of the model user ?✓ Can SMEDIS be used to define gaps in current knowledge in dense gas dispersion ?✓ What does future hold for SMEDIS products and methodology ?✓ With several guest experts invited :<ul style="list-style-type: none">- A Regulator (National)- Someone from the Chemical/Process Industry- A representative from the Commission (DGXII)- A model user/consultant- Someone to give a US viewpoint- Someone from the other CEC Model Evaluation exercises - the jet fire or the gas explosion code evaluation exercises |
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Wednesday 13 October 1999

| Session 1d : Model Evaluation Grand Amphi Chairman : Prof. Dr. Ir. P. J.H.Builtjes, TNO-MEP, The Netherlands. | | Session 6a : Decision Support System Salle d'Examen Chairman : Prof. Dr. R. San José, University of Valladolid, Spain. | |
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| 14h00 – 14h20 | <p>56 - TURBULENT FLUCTUATIONS AND THEIR USE IN ESTIMATING COMPLIANCE WITH STANDARDS AND IN MODEL EVALUATION.</p> <p>D.J. Carruthers, C. McHugh, S.J. Dyster, CERC, Cambridge, U.K. D.J. Thomson, UK Meteorological office, London, U.K. <i>Abstract proceedings: page 23</i></p> | 14h20 – 14h40 | <p>67 – AN INTEGRATED AND OPERATIONAL SYSTEM FOR AIR POLLUTION EVALUATION AND MANAGEMENT IN THE GREAT BOLOGNA AREA</p> <p>M. Deserti et al, ARPA - Servizio Meteorologico Regionale, Bologna, Italy Abstract proceedings: page247</p> |
| 14h40h – 15h00 | <p>63 - A MODEL FOR SIMULATING ATMOSPHERIC DISPERSION IN A LOW-WIND CONDITION</p> <p>S.Okamoto, H. Ohnishi, T. Yamada, S. Mikami and T. Itohiya, Tokyo University, Japan. <i>Abstract proceedings: page 27</i></p> | 14h20 – 14h40 | <p>67 – AN INTEGRATED AND OPERATIONAL SYSTEM FOR AIR POLLUTION EVALUATION AND MANAGEMENT IN THE GREAT BOLOGNA AREA</p> <p>M. Deserti et al, ARPA - Servizio Meteorologico Regionale, Bologna, Italy Abstract proceedings: page247</p> |
| 14h40h – 15h00 | <p>63 - A MODEL FOR SIMULATING ATMOSPHERIC DISPERSION IN A LOW-WIND CONDITION</p> <p>S.Okamoto, H. Ohnishi, T. Yamada, S. Mikami and T. Itohiya, Tokyo University, Japan. <i>Abstract proceedings: page 27</i></p> | 14h40h – 15h00 | <p>72 AIR QUALITY MODELING SYSTEM FOR A MEDIUM-SIZED TOWN : A CASE STUDY IN ESTONIA</p> <p>M. Kaasik, V. Kimmel, H. Kaasik, University of Tartu, Estonia <i>Abstract proceedings: page 249</i></p> |
| 15h00 – 15h30 | Coffee break | | |
| Session 1e : Model Evaluation Grand Amphi Chairman : Dr. R. E. Britter, University of Cambridge, United Kingdom | | Session 6b : Decision Support System Salle d'Examen Chairman : Dr. H. R. Olesen, National Environmental Research Institute, Denmark. | |
| 15h30 – 15h50 | <p>31 - A LAGRANGIAN-PUFF DISPERSION MODEL: EVALUATION AGAINST TRACER DATA</p> <p>C. Mangia, U. Rizza, ISIA/CNR Lecce, Italy. Abstract proceedings: page 17</p> | 15h30 – 15h50 | <p>99 - DEVELOPMENT OF THE DECISION SUPPORT SYSTEM FOR AIR QUALITY MANAGEMENT FOR REGULATORY PURPOSES</p> <p>Viktor Pocajt, Radmila Cvijovic, University of Belgrade, Yugoslavia. <i>Abstract proceedings: page 251</i></p> |
| 15h50 - 16h10 | <p>13 - SIMULATIONS OF ATMOSPHERIC DISPERSION IN URBAN STABLE BOUNDARY LAYER</p> <p>E. Ferrero, D. Anfonssi, G Tinarelli, Univ. Del Piemonte Orientale, Alessandria, Italy. <i>Abstract proceedings: page 11</i></p> | 15h50 - 16h10 | <p>37 - NEW IMPROVEMENTS ON OPANA MODEL BY USING WWW RESOURCES</p> <p>R. San Jose, I. Salas, D. Camara, C. Romero and R.M. Gonzalez Institute Env. Software and Modelling Group / Computer, University of Madrid, Spain <i>Abstract proceedings: page 245</i></p> |
| 16h10 – 16h30 | <p>76 - VALIDATION OF THE DEMOKRITOS DISPERSION MODELLING SYSTEM, BASED ON THE INDIANAPOLIS EXPERIMENT</p> <p>E. Davakis^{1,2}, S. Andronopoulos¹, J.G. Bartzis¹ and S .G. Nychas² 1, National Centre for Scientific Research "Demokritos", Greece 2, Aristotle University of Thessaloniki, , Greece. <i>Abstract proceedings: page 29</i></p> | 16h10 – 16h30 | <p>123 - SIMTRAP PROJECT: EXPERIENCE AND RESULTS</p> <p>E. Angelino*, K. Fedra*, S. Mortarino**, K. Noekel°, M. Schmidt° * A.S.L. Città di Milano – P.M.I.P. of Milan, Italy. ° Environmental Software & Services GmbH, Italy ** Environmental consultant for Provincia di Milano, Italy. <i>Abstract proceedings: page 153</i></p> |
| 16h30 – 18h30 | | | |
| 18h30 Departure | <p style="text-align: center;">Conference dinner In the Casino of Forges-Les-Eaux</p> | | |

Thursday 14 October 1999

| | Session 7a : Meteorological Pre-Processing Grand Amphi Chairman : Dr. B. Carissimo, EDF/DER, France. | Session 2c : Air Quality Management ; the EU air quality directive Salle d'Examens Chairman : Dr. C. Cuvelier, Joint Research Centre, Italy. |
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| 9h – 9h20 | <p>14- METEOROLOGICAL PRE-PROCESSING OF INCOMING SOLAR RADIATION AND HEAT FLUX OVER A SPARSE BOREAL FOREST AT THE NORTHERN SITE DURING WINTER CONDITIONS</p> <p>S.E. Gryning & E. Batchvarova, RISOE National Laboratory, Denmark <i>Abstract proceedings: page 279</i></p> | <p>91 - URBAN OZONE LEVELS IN EUROPE: SIMULATIONS WITH THE OFIS MODEL</p> <p>P. Sahm and N. Moussiopoulos Lab. of Heat Transfer and Env. Engineering, Aristotle University Thessaloniki, Greece <i>Abstract proceedings: page 111</i></p> |
| 9h20 – 9h40 | <p>18 - METEOROLOGY APPLIED TO URBAN AIR POLLUTION PROBLEMS COST 715</p> <p>B. Fisher 1, J. Kukkonen 2, M. Schatzmann 3 1 - University of Greenwich, U.K., 2 - Finnish Meteorological Institute, Finland, 3 - Universität Hamburg Germany <i>Abstract proceedings: page 281</i></p> | <p>92 - EVALUATION OF A 3D FLOW AND POLLUTANT DISPERSION MODELLING SYSTEM TO ESTIMATE CLIMATOLOGICAL GROUND LEVEL CONCENTRATIONS IN COMPLEX COASTAL SITES</p> <p>S. Finardi, G. Tinarelli, Al. Nanni, G. Brusasca, and G. Carboni, ENEL, Italia. <i>Abstract proceedings: page 113</i></p> |
| 9h40 – 10h00 | <p>21- OPERATIONAL METEOROLOGICAL PRE-PROCESSING AT EMILIA-ROMAGNA ARPA METEOROLOGICAL SERVICE AS A PART OF A DECISION SUPPORT SYSTEM.</p> <p>M. Deserti et al, ARPA - Servizio Meteorologico Regionale, Bologna, Italy <i>Abstract proceedings: page 283</i></p> | <p>115 – APPLICATION OF THE NEW EU AIR QUALITY DIRECTIVE TO AN ENVIRONMENTAL IMPACT ASSESSMENT STUDY</p> <p>S. Lemos et al, University of Aveiro, Portugal. <i>Abstract proceedings: page 115</i></p> |
| 10h00 – 10h20 | <p>131 Micrometeorological simulations over complex terrain with SUBMESO : A model study using a nouvel pre-processeur</p> <p>T. Pénelon, I. Calmet, D. Mironov, Ecole Centrale de Nantes, France <i>Abstract proceedings: page 295</i></p> | <p>140 - PROCEDURES USED TO DEVELOP AND ADOPT NEWER DISPERSION MODELS BY THE US EPA.</p> <p>Richard H. Schulze, TRINITY CONSULTANTS INC., Texas, USA <i>Abstract proceedings: page 117</i></p> |
| 10h20 – 10h50 | Coffee break | |

Thursday 14 October 1999

| Session 7b : Meteorological Pre-Processing Grand Amphi Chairman : Dr.S.-E. Gryning, Riso, Denmark. | | Session 1f : Model Evaluation Salle d'Examen Chairman : Dr. C. Sacre, C.S.T.B., France. | |
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| 10h50 – 11h10 | 29 - BOUNDARY LAYER SCALING PARAMETERS DERIVED BY DIFFERENT SODAR SYSTEMS H. Thielen, R. Martens, Gesellschaft fur Anlagen und Reaktorsicherheit mbH, Germany. K. Mabmeyer, Universität of Paderborn, Germany. H. Schnadt, TVÜ – Rheinland / Berlin – Brandenburg E.V., germany <i>Abstract proceedings: page 285</i> | 80 - THE DUTCH GAUSSIAN PUFF MODEL TSTEP 1.0: VALIDATION WITH THE COPENHAGEN AND KINCAID DATA SETS AND MODEL-COMPARISON WITH THE ATSTEP AND REM3 MODEL | T. Hantke, H. Eleveld, RIVM, Laboratory of Radiation Reasearch, The Netherlands. <i>Abstract proceedings: page 33</i> |
| 11h10– 11h30 | 33 - PROSPECTS OF SODAR DATA FOR PRACTICAL URBAN AIR QUALITY MODELLING M.A. Kallistratova, V.M. Kopeikin, M.S. Pekour, Russian Acad. of Sci, Moscow, Russia. <i>Abstract proceedings: page287</i> | 114 - DEVELOPMENT AND EVALUATION OF THE ADMS BUILDING EFFECTS MODULE | A. Robins, EnFlo, University of Surrey, UK. C. McHugh, CERC, Cambridge, UK. <i>Abstract proceedings: page 45</i> |
| 11h30 – 11h50 | 52 - 3-D METEOROLOGICAL SIMULATIONS OVER PARIS AREA DURING POLLUTION EPISODES Troude, E. Dupont and B. Carissimo, Electricité de France, Chatou A.I. Flossmann, Lamp/OPGC, Université Blaise Pascal, Aubiere, France <i>Abstract proceedings: page 289</i> | 20 - EVALUATION OF A NON-GAUSSIAN PUFF MODEL | T. Tirabassi, Institute ISAO of C.N.R, Bologna, Italy C.Mangia and U. Rizza, Institute ISIAAt of C.N.R, Lecce, Italy. <i>Abstract proceedings: page 13</i> |
| 11h50 – 12h10 | 103 - EVALUATION OF INVERSION STRENGTHS AND MIXING HEIGHTS DURING EXTREMELY STABLE ATMOSPHERIC STRATIFICATION A.Karppinen, S. M. Joffre, J. Kukkonen and P. Bremer, Finnish Meteorological Institute <i>Abstract proceedings: page 291</i> | 108 - VALIDATION OF THE DISPERSION MODEL CAR-FMI AGAINST MEASUREMENTS NEAR A MAJOR ROAD | J. Härkönen, J. Walden, J. Kukkonen, A. Karppinen, K. Lusa, Finnish Meteorological Institute, Finland. <i>Abstract proceedings: page 41</i> |
| 12h10 – 12h30 | 110 - SURFACE FLUXES AND ATMOSPHERIC STABILITY OBTAINED FROM A SURFACE ENERGY BALANCE MODEL WITH PARAMETERS ESTIMATED FROM SATELLITE REMOTE SENSING K. De Ridder and C. Mensink, VITO,Mol, Belgium. <i>Abstract proceedings: page 293</i> | 8 - INTERCOMPARISON OF THE LAGRANGIAN AND EULERIEAN MODEL PREDICTIONS AT LOCAL SCALE WITH MEASURED CONCENTRATIONS | V. Sandu, National Institute of Meteorology and Hydrology, Bucharest, Romania. <i>Abstract proceedings: page 9</i> |

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| 12h30 – 14h20 | Lunch |
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| Session 1g : Model Evaluation Grand Amphi Chairman : Prof.. A. Robins, School of Mechanical and Material Engineering, United Kingdom. | |
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| 14h20 – 14h40 | 111 - COMPARISON AND EVALUATION OF DISPERSION CODES FOR INDUSTRIAL HAZARD PREDICTION: FINDINGS AND CONCLUSIONS FOR PRACTICAL DECISION MAKING D. Kogelschatz, Swiss Federal Institute of Technology Zurich, ETH Zurich, Switzerland. <i>Abstract proceedings: page 43</i> |
| 14h40 – 15h00 | 121 – ON THE USE OF NON-STEADY-STATE MODELLING FOR REGULATORY APPLICATIONS J. S. Scire,Earth Tech, Inc, Massachussets, USA. <i>Abstract proceedings: page 49</i> |
| 15h00 – 15h20 | 51 - PREDICTING CONCENTRATION FLUCTUATIONS WITH A PUFF-PATICLE MODEL, AND ITS EVALUATION USING DRAFT ASTM PRACTICE Z 6849 Z P. De Haan, Swiss Federal Institute of Technology, Zurich, Switzerland. <i>Abstract proceedings: page 21</i> |
| 15h20 – 16h20 | Round table discussion |
| 16h-20 | END OF THE CONFERENCE |