



## **Detailed Program / Programme détaillé**

**23/05/2005 9h00-10h00**  
**Amphithéâtre Lumière**  
**Opening Session / Session d'ouverture**

*8h00-9h00. Attendees Welcome / Accueil des participants*

### **Opening Communications / Communications d'ouverture**

*Session Chairman / Président de séance :*  
D. Pfefer, Président du Symposium

9h00 – 9h10 PFEFER DANIEL., Président du Symposium  
9h10 – 9h15 DURVILLE JEAN-LOUIS, Président du CFGI  
9h15 – 9h20 VESSERON PHILLIPE, Président du BRGM  
9h20 – 9h25 RENGERS N., Président de l'AIGI  
9h25 – 9h35 REPELIN P. Vice Président du Grand-Lyon, chargé de l'Environnement  
9h35 – 9h50 TARDY D., Past-Président de la Fédération Nationale des Travaux Publics (FNTP) et  
Vice Président de la Fédération des Industries Européennes de la Construction (FIEC)

### **10h00-10h30, Exhibition opening / Inauguration de l'exposition**

**10h30-12h30**  
**Amphithéâtre Lumière**  
**Invited lectures / Conférenciers invités**

*Session Chairman / Président de séance :*  
Prof. M. Arnould (Honorary President of the CFGI and IAEG)

10h30 – 11h10 VINCENT DANIEL, UE, Le réseau transeuropéen de transport, ossature indispensable de l'Union Européenne

11h10–11h50 WANG SIJING, CHINA, Geolines, new challenge to the engineering development of China

11h50–12h30 HATHEWAY ALLAN W., USA, Geologic Influences on the Safety and Function of Linear Infrastructure in North America

**23/05/2005 14h00-16h00**

**Session 1A Oral – Amphithéâtre Lumière**

**Pipelines, offshore, electric lines / Pipelines, offshore, lignes à haute tension**

*Session Chairman / Président de séance :*

*Prof. Martin Culshaw (British Geological Survey)*

1. 14h00-14h30. **Special lecture.** KEATON JEFFREY R. Engineering Geology for Siting and Design of Buried Pipelines: Examples from the Western United States
2. 14h30-14h45. BOIDY ERIC, DEMERDACHE MARC. Gurara Water Transfer in Nigeria : impact of geotechnical conditions on large diameter thin steel pipeline design
3. 14h45-15h00. BUACHIDZE GURAM, TVALCHRELIDZE MERAB, ZVIADADZE UCHA. Baku - Tbilisi - Geyhan (BTC) Pipeline (Georgian Part) - Sensitive Environments Areas and High Risk
4. 15h00-15h15. BURNS SCOTT F. Landslide potential along gas pipelines in the Coast Range and Willamette Valley of Oregon USA
5. 15h15-15h30. LEVENTELI Y., ERTUNC A., AKDUMAN L., YILMAZER O. Motorway, pipeline and dam within Ecemiş fault zone: Adana-Turkey
6. 15h30-15h45. OLIVEIRA HUDSON REGIS, DE VASCONCELLOS CARLOS RENATO ARAGONEZ. Geotechnical Risks affecting Pipelines - The Bolivia-Brazil Natural Gas Pipeline Experience
7. 15h45-16h00. BOOTH S.J., HODDER ALAN, REEDER TIM. Geo-environmental ground risk appraisals for linear routes

**23/05/2005 17h00-19h00**

**Session 2A Oral – Amphithéâtre Lumière**

**Pipelines, offshore, electric lines / Pipelines, offshore, lignes à haute tension**

*Session Chairmans / Présidents de séance :*

*Prof. Jean Paul Tisot (Directeur ENSG, Nancy),*

*Prof. Paul Marinos (Athens)*

8. 17h00-17h15. GIBSON A D., FORSTER A., CULSHAW M.G., COOPER A.H., FARRANT A. JACKSON N., WILLET D. Rapid Geohazard Assessment System for the UK Natural Gas Pipeline Network
9. 17h15-17h30. OSIPOV V.I., VIKTOROV A.S., GINSBURG A.A., JIGALIN A.D. On-line environmental monitoring systems for large linear constructions
10. 17h30-17h45. SAVIGNY WAYNE K., PORTER MICHAEL, LEIR MARK. Geohazard management trends in the onshore pipeline industry
11. 17h45-18h00. FAN WEN, WANG SIJING, PENG JIANBING. Reliability analysis of a long transporting pipeline system under earthquake
12. 18h00-18h15. COLONNA JEAN PAUL, PUECH ALAIN. State of the Art in Offshore Pipeline and Cable Route Surveys
13. 18h15-18h30. LOCAT JACQUES, LEE HOMA. Submarine Mass Movement Hazards Considerations for Linear Surveys
14. 18h30-18h45. LAGABRIELLE RICHARD. Deep sea electrical profiling for optical fibre cables burying assessment
15. 18h45-19h00. YU TIAN-YUAN. Engineering geological investigation report of 500 kv electric transmission line form hydropower station to Zigong city (China)
16. 19h00-19h15. ZHANG ZHENGZHI, DENG NANWEN. Engineering Geology investigation technique applied to transmission lines in China

**23/05/2005 14h00-16h00**

**Session 1B Oral - Salle Sinclair 3**

**Reconnaissance and testing methods / Méthodes de reconnaissance et d'essais**

*Session Chairman / Président de séance :*

*Richard Lagabrielle (Directeur de Recherche au LCPC)*

17. 14h00-14h15. BITRI ADNAND, GRANDJEAN GILLES, BALTASSAT JEAN-MICHEL. Geo-mechanical profiling in urban areas using spectral analysis of surface waves (SASW)
18. 14h15-14h30. FAURE R.M., LEFEBVRE GUY, KARRAY MOURAD, CHATENOU D GILLES, Investigation of tunnel liners using surface wave
19. 14h30-14h45. FENG QUANHONG, ROSHOFF KENNERT. 3-D digital mapping and documentation of a tunnel by using the full-coverage 3D laser scanning techniques
20. 14h45-15h00. LAGARDE JULIEN, LAGUERRE L., ABRAHAM ODILE, COTE PHILIPPE, PIGUET JACK PIERRE, BALLAND CYRILLE., ARMAND GILLES. Spectral analysis of surface waves for the characterization of the EDZ in circular galleries
21. 15h00-15h15. LAURENT SERGE. Optical and acoustic borehole imagery for precise structural data
22. 15h15-15h30. MATTIUZZO J-L., GRAVELAT S. Monitoring earth dams and embankments. High performance and High precision geophysical measurements
23. 15h30-15h45. OKAZAKI KENJI, ITO YOSHIHIKO. The detection of groundwater distribution by electric soundings in two seasons. Importance on slope stability (National Road R333, Hokkaido, Japan)

**23/05/2005 17h00-19h00**

**Session 2B Oral - Salle Sinclair 3**

**Reconnaissance and testing methods / Méthodes de reconnaissance et d'essais**

*Session Chairman / Président de séance :*

*Christine King (Chef de Service adjoint, BRGM),*

24. 17h00-17h15. BOURGUIGNON ANNE, BAGHDADI NICOLAS, KING CHRISTINE, DESPRATS JEAN FRANÇOIS, BADREDDINE BADRI. Multi-sensor and multi-date analysis for land use and land cover mapping in Guinea : potential for updating
25. 17h15-17h30. DEFFONTAINES BENOIT, FRU NEAU BENEDICTE, PRUNIER-LEPARMENTIER ANNE-MARIE, ARNAUD ALAIN, COJEAN ROGER, PAJOT EMMANUEL, RUDANT JEAN-PAUL. Urban instability revealed by DINSAR and SPN interferometry : the Montmartre "funiculaire" case example (Paris, France)
26. 17h30-17h45. FOERSTER EVELYNE, MODARESSI HORMOZ. Dynamic parameter fitting for numerical prediction of ground settlements induced by the digging of shallow tunnels
27. 17h45-18h00. THIERRY PIERRE, DEVERLY FABRICE, REPELIN MICHEL, SIMONETTO ELISABETH, ARNAUD ALAIN, RAUCOULES DANIEL, LEMBEZAT CAROLE, CLOSSET LUC, KING CHRISTINE. Survey of a linear subsidence in urban area using 3D geological model and satellite Differential InSAR
28. 18h00-18h15. MANDOUR HOUCINE, SHRIVASTAVA ABHAY K., LEVACHER DANIEL, KHAY MATOREN. Electro-mechanical device to measure the stiffness of soil
29. 18h15-18h30. NGAN-TILLARD DOMINIQUE, CHENG X.H., MOLLE JORDY, VAN NES JEROEN, ZITHA PACELLI. Progress in schematising the Dutch soft subsurface for line infrastructures using cone penetration test and electromagnetic data
30. 18h30-18h45. SHI B., SUI HB., LIU J. A study on BOTDR-based distributed optical fiber strain measurement for geo-linear infrastructure health monitoring

**24/05/2005 8h30-10h30**  
**Session 3A Oral – Amphithéâtre Lumière**  
**Roads, highways, railways: reconnaissance**  
**Routes, autoroutes, voies ferrées : reconnaissance**

*Session Chairmans / Présidents de séance :*

*Dr Alain Guilloux (Président Terrasol),*

*Prof. Abdul Shakoor (Kent state University, Ohio, USA)*

31. 8h30-9h00. **Special lecture.** RAT MARCEL. The geological and geotechnical survey of the Millau's viaduct
32. 9h00-9h15. BIEVRE GREGORY, MERCIER ERIC. Detailed geological mapping of the Mercureaux anticline and dynamic tectonic modelling of the Besançon bundle: application to the Besançon bypass (Jura mountains Eastern France)
33. 9h15-9h30. OLIVEIRA RICARDO, REBELO VIRGILIO, JEREMIAS FILIPE, PIMENTA LURDES, COELHO A. GOMES. Geological and Geotechnical Studies Associated with the Basic Design of a New Bridge Over the Tagus River North of Lisbon at Carregado
34. 9h30-9h45. ONODA S., SASAKI Y., ANAN S., UENO S., TAKAYAMA T., ROAD SLOPE GIS RESEARCH GROUP. Experimental research and advancement of a Road Slope Hazard Map
35. 9h45-10h00. SHANG YJ., PARK HD.; YANG ZF.; DING JX. Geological hazards classification and engineering geological zonation for the Linzhi-Basu section of Sichuan-Tibet Highway
36. 10h00-10h15. TAN BOON KONG. Engineering geology of rock slopes in highway construction
37. 10h15-10h30. ASTE JEAN PIERRE, BADJI NOURDINE, BURLET DENIS. GEOTRACE help system for the management of linear infrastructures geological and geotechnical studies

**24/05/2005 8h30-10h30**  
**Session 3B Oral - Salle Sinclair 3**  
**Tunnels: Reconnaissance**

*Session Chairmans / Présidents de séance :*

*Jean Piraud (ANTEA-AFTES),*

*D. Morfeldt (IAEG, President Mineconsult, Sweden)*

38. 8h30-8h45. DUFFAUT PIERRE. A straight tunnel rarely is the best way between two points
39. 8h45-9h00. MARINOS P., HOEK E., KAZALIS N., AGISTALIS G., MARINOS V. The tunnels of Egnatia Highway. Design and construction in a variety of rock masses under difficult geological conditions
40. 9h00-9h15. PERELLO PAOLO, VENTURINI GUIDO, DEMATTEIS ANTONIO, BIANCHI GIANPINO W., DELLE PIANE LUCA, DAMIANO ANTONIO. Determination of reliability in geological forecasting for linear underground structures: the method of the R-index
41. 9h15-9h30. FOUCHE OLIVIER, ALFONSI PIETRO. Geological hazard assessment in tunnelling through rock masses: need and difficulty of stochastic fracture network simulation
42. 9h30-9h45. MOLINERO JORGE, SAMPER JAVIER. Numerical modelling of hydrogeological impact produced by tunnel construction in soils and bedrocks
43. 9h45-10h00. TULLBERG ODD, QUANHONG FENG, ROUX LUDOVIC. Laser scanning and vr visualisation of underground tunnel projects
44. 10h00-10h15. OSHIMA HIROSHI. Route planning design and construction of Shinkansen tunnels in particular pyroclastic sediments
45. 10h15-10h30. WASSING B.B.T., VELDKAMP J.G., NGUYEN B.L. Three-dimensional geological models as basis for finite element geomechanical simulations – Bored tunnel in heterogeneous subsoil

**24/05/2005 10h45-12h15**  
**Session 4A Oral - – Amphithéâtre Lumière**  
**Roads, highways, railways: construction and maintenance**  
**Routes, autoroutes, voies ferrées, construction et maintenance**

*Session Chairmans / Présidents de séance :*

*Prof. Marcel Rat (Ingénieur Général Hon. Ponts et Chaussées),*

*Prof. Ricardo Oliveira (President, COBA, Portugal)*

46. 10h45-11h00. BERGERE A., MOULIN MARCEL. Construction monitoring evolution and maintenance of the A43 motorway
47. 11h00-11h15. CHAPEAU CHRISTIAN, JOSEPH AGNES, ASPE CAMILLE. From the route survey to the maintenance works: case history of the RN 304 in Ardèche France
48. 11h15-11h30. HEUBI CHRISTIAN. Highway A5 - the Chanélaç open cast tunnel Switzerland - Abstract
49. 11h30-11h45. KIESSE MARCIA E., LEE THOMAS, MURRAY ROD. Seismic retrofit of the posey and webster street tubes in Oakland California: an evaluation of the q/a q/c program for triple fluid jet grout columns
50. 11h45-12h00. GRANDSERT P., TALFUMIERE VINCENT. Earth structures maintenance of the French rail network
51. 12h00-12h15. CORTLEVER N.G. Design of Double Track Railway Bidor-Rawang on AuGeo Piling System according to BS8006 and PLAXIS numerical analysis

**24/05/2005 10h45-12h45**  
**Session 4B Oral - Salle Sinclair 3**  
**Tunnels: construction and maintenance**  
**Tunnels: construction et maintenance**

*Session Chairmans / Présidents de séance :*

*Pierre Duffaut (AFTES),*

*Prof. Sebastiano Pellizza (Politecnico di Torino, Italy)*

52. 10h45-11h00. MARINOS P., NOVACK M., BENISSI M., PANTELIADOU M., PAPOULI D., STOUMPOS G., MARINOS V., KORKARIS K. Crossing a river bed zone in the Metro Works of Athens
53. 11h00-11h15. JANSSENS B. BOUHENNI S., DETHY B., VERGARA N., MAIRY P., MONJOIE A. The HST tunnel at Soumagne (Belgium) and its geological difficulties
54. 11h15-11h30. FIFER BIZJAK KARMEN. Tunneling in soft rock beneath an urban area Tunnel Trojane (Slovenia)
55. 11h30-11h45. BALAN ALAIN, ANDRE DANIEL. Evaluation of the geological risks on the EOLE underground railway project, Paris
56. 11h45-12h00. KITANO KOICHI, TAMAI SHINYA. Behaviour of two separate groundwater tables accompanied by tunnel excavation in granitic rocks under elevated peneplain in Japan
57. 12h00-12h15. VIBERT CHRISTOPHE, GUPTA S.C., FELIX YVES, BINQUET JEAN, ROBERT FRANCIS. Dul Hasti HPP (India): experience gained from back-analysis of the excavation of the headrace tunnel
58. 12h15-12h30. BONY P. Completion of the A86 / VL1 - Paris peripheral motorway. Diverse geology and choice of excavation methods
59. 12h30-12h45. GUO SHUTAI, LIU ZHENQIAN. A Question of Mud Leak in the Crossing of Directional Drilling on the Qin River of the West-East Gas Pipeline Project

**24/05/2005 14h00-15h45**  
**Session 5A Oral – Amphithéâtre Lumière**  
**High speed lines / Lignes à Grande Vitesse**

*Session Chairmans / Présidents de séance :*

*Marie-Josèphe Poitout (Direction Ingénierie SNCF, Paris),*

*Prof. Sijing Wang (Chinese Academy of Engineering, Beijing, China)*

60. 14h00-14h30. **Special lecture.** ROUMEGUERE. P. High speed lines development
61. 14h30-14h45. BOUTONNIER L., GUERPILLON Y. Geotechnical investigations and settlement swelling specifications for high speed trains
62. 14h45-15h00. GUILLOUX A., BINET F., DELLA LONGA Y. Geotechnical survey adaptation for collapsing loess and liquefaction hazards. Example of the LGV East European project lot H
63. 15h00-15h15. OLIVEIRA RICARDO, REBELO VIRGILIO, ABREU RUI, MORGADO ANTONIO. Engineering Geological Studies for the Preliminary Design of the Aveiro-Gaia Section of the High-Speed Train Lisbon-Oporto
64. 15h15-15h30. POITOUT MARIE-JOSEPHE, BALAN ALAIN, MUDET MARCEL. Geological, Geotechnical, and Hydrological File and its integration in the public markets of the European LGV East
65. 15h30-15h45. DELHOMEL ALAIN, POITOUT MARIE-JOSEPHE. Earthworks specificities on High Speed Lines (HSL)

**24/05/2005 14h00-15h45**  
**Session 5B Oral - Salle Sinclair 3**  
**Environment / Environnement**

*Session Chairmans / Présidents de séance :*

*Dr Jean Claude Roux (Président Comité français d'Hydrogéologie),*

*Aziz. Ertunç (Cukurova University, Adana, Turkey)*

66. 14h00-14h30. **Special lecture.** MIRRI STEFANO; SARGENTINI MARIA. Tunnelling and environmental protection: the experience of the Bologna-Florence high speed rail line
67. 14h30-14h45. DESPRATS JEAN FRANCOIS, LANGUEPIN M., LEVILLAIN G., HURTEVENT J. Groundwater pollution linked to traffic on roads
68. 14h45-15h00. EISENLOHR LAURENT, ROSSIER Y., ETCHEVERRY DAVID. Vulnerability of groundwater resources to contamination from linear infrastructures – Numerical simulation of solutions to reduce the impact
69. 15h00-15h15. EISENLOHR LAURENT, CROSNIER JEROME. Sanitary risk assessment on (potentially) polluted soils : Examples with the conception and management of road infrastructures
70. 15h15-15h30. OHTA TAKEHIRO, HATTORI SHUICHI, KIYA HIDEO. Method to evaluate rocks for exudation of acid water from rock mucks at the Hakkoda tunnel near mine area
71. 15h30-15h45. TAMOTO SHUICHI, YOSHIHIKO ITO , SHOJI HASHIMOTO. The leaching characteristic of heavy metals from altered volcanic rocks of several grain sizes in Hokkaido northern Japan

**24/05/2005 17h00-18h45**  
**Session 6A Oral – Amphithéâtre Lumière**  
**Lyon-Torino project and alpine tunnels**  
**Projet Lyon Turin et tunnels alpins**

*Session Chairmans / Présidents de séance :*

*Prof. Denis Fabre (CNAM, Paris),*

*Simon Löw (Federal Institute of Technology, ETH Zurich, Switzerland)*

72. 17h00-17h30. **Special lecture.** DARMENDRAIL X., BRINO L., MONIN N., PARISI M.E. Lyon-Turin Railway Project. Geological constraints and various stages of studies along the joint italian-french stretch of the international section
73. 17h30-17h45. FABRE DENIS, LACOMBE P., ANTOINE P. Geotechnical investigations for the franco-italian base tunnel under the Alps and their contribution to Engineering Geology
74. 17h45-18h00. DELLE PIANE LUCA, PERELLO PAOLO, MARTINOTTI GIORGIO, GALLARA FRANCO, DAMIANO ANTONIO, DEMATTEIS ANTONIO, VENTURINI GUIDO, CADOPPI PAOLA, GATTIGLIO MARCO, DARMENDRAIL XAVIER. The geological and hydrogeological studies on the Italian side of the new Turin-Lyon railway link
75. 18h00-18h15. DEMATTEIS A., VENTURINI G., PERELLO P., DELLE PIANE LUCA, TORRI R., BIANCHI G., DARMENDRAIL X. Deep tunnels and groundwater impacts
76. 18h15-18h30. ZIEGLER H.J. Lötschberg base tunnel: Geology and systematic pre-exploration
77. 18h30-18h45. SEINGRE GERARD. Lötschberg-Basetunnel Assessment of the excavation with tunnel boring machines

**24/05/2005 17h00-18h15**  
**Session 6B Oral - Salle Sinclair 3**  
**Slope stability – landslides / Stabilité des pentes - glissements de terrain**

*Session Chairmans / Présidents de séance :*

*Prof. Roger Cojean (EMP, ENPC, Vice President CFGI, Paris),*

*Dr Yasuhito Sasaki (Public Works Institute, Ibaraki, Japan)*

78. 17h00-17h15. AMARAL CLAUDIO. Assessment of road linear infrastructure problems in Rio de Janeiro
79. 17h15-17h30. JELISAVAC B., VUJANIC V., ROKIC LJ., MITROVIC P., JOTIC M., MILENKOVI C S. Geotechnical investigations of the landslide "Lapisnica" aimed at the repair of main road M-5 in the vicinity of Sarajevo
80. 17h30-17h45. KOUMANTAKIS I., ROZOS D., MARKANTONIS K., TSAGARATOS P. Engineering geological conditions related ground failures and proposed measures along the part of Peloponnesian railway line Greece
81. 17h45-18h00. ROZOS D., MARKANTONIS K., KOUMANTAKIS I. A contribution to the study of landslide phenomena in Greek territory. Some cases from Attica Boeotia and Euboea counties
82. 18h00-18h15. MALLET C., NEDELLEC JEAN LOUIS, ZORNETTE NICOLAS. Hazard assessment concerning earth instabilities on the French part of the Basque Coast (Pyrenées Atlantiques – France)
83. 18h15-18h30. CHEN JIANPING, GU XIANMIN, SHI BINFEI, FAN JIANHUA, LI XIAOCHUN. Man made slope deformation analysis at the site K108 on Jingzhu freeway near Shaoguang
84. 18h30-18h45. WOO IK, FLEURISSON JEAN-ALAIN, PARK YEON-JUN, PARK HYUCK-JIN. Long-term slope stability with respect to weathering processes

**25/05/2005 8h30-10h00**  
**Session 7A Oral – Amphithéâtre Lumière**  
**Slope stability, landslides / Stabilité des pentes, glissements de terrain**

*Session Chairmans / Présidents de séance :*

*Dr Pierre Desvarreux (ADGRGT),*

*Prof. Fuquan Wu (IAEG, Chinese Academy of Sciences, Beijing, China)*

85. 8h30-8h45. SASAKI Y., ANAN S., UENO S., ONODA S., ROAD SLOPE GIS RESEARCH GROUP. GIS for Slope Hazard Reduction of Roads in Japan
86. 8h45-9h00. CHATZIANGELOU M., ANAGNOSTOPOULOS K., CHRISTARAS BASILE. Landslide along the Asprovalta-Strymonas part of Egnatia Highway in North Greece
87. 9h00-9h15. DURANTHON JEAN PAUL, EFFENDIANTZ LAURENT, LEMAITRE FRANCOIS. An original methodology for instable landslides monitoring: the microwave radar for distance measurement. The case study of the national road number 91 at the bottom of the rocky slope of Séchillienne
88. 9h15-9h30. MORELLI MICHELE, PARO LUCA, PIANA FABRIZIO. Multidisciplinary approach to hazard and risk analysis: the case of Cassas landslide (Susa Valley NW Italy)
89. 9h30-9h45. TSAGARATOS P., KOUMANTAKIS I., ROZOS D. Landslide phenomena in environments covered by granitic formations influence of the degree of weathering geotechnical approach and classification
90. 9h45-10h00. DELEZE JEAN-YVES, ORNSTEIN PASCAL, ROUILLER J.D. GUARDAVAL a remote monitoring system applied to landslide surveying in alpine regions
91. 10h00-10h15. CHAUBEAU JOELLE, FALCETTA JEAN LOUIS. Ouvrages géotechniques pour ouvrages linéaires

**25/05/2005 8h30-10h30**  
**Session 7B Oral - Salle Sinclair 3**  
**Earthquakes and liquefaction, Canals and rivers**  
**Séismes et liquéfaction des sols, Canaux et rivières**

*Session Chairmans / Présidents de séance :*

*Prof. Hormoz. Modaressi (Head of Department, BRGM),*

*Prof. Terry West (Purdue University, Indiana, USA)*

92. 8h30-8h45. ARGYROUDIS S., PITILAKIS K., ANASTASIADIS A. Roadway Network Seismic Risk Analysis in Urban Areas: The case of Thessaloniki Greece
93. 8h45-9h00. CHRISTARAS BASILE, PAVLIDES SP., PAPATHANASSIOU GEORGE. Liquefaction induced ground surface disruption. Case study from 2003 Lefkas (Greece) earthquake
94. 9h00-9h15. WEST TERRY R., LIN ZHAO. Liquefaction Analysis of Highway Embankments in Southwest Indiana U.S.A. Regarding Earthquake Emergency Route-Planning
95. 9h15-9h30. DUPRAY SEBASTIEN, DALY FABRICE. The use of armourstone as construction material of rivers and canals: Towards an integrated approach
96. 9h30-9h45. FAUCHARD CYRILLE, COTE PHILIPPE, MERIAUX PATRICE. High output geophysical methods for dyke testing
97. 9h45-10h00. FLEURISSON J.A., COJEAN ROGER, THENEVIN ISABELLE. A methodological approach to assessing long term deformation of the excavated rock slopes of the permanent shiplock at the Three Gorges Dam (China)
98. 10h00-10h15. GUANGCHENG LI, FUZHANG YAN. An Introduction to the China's South-North Water Transfer Project and Its Principal Engineering Geological Problems
99. 10h15-10h30. TAN BOON KONG. Riverbank instability: some case studies in Sarawak East Malaysia

**25/05/2005 10h45-12h45**  
**Session 8A Oral – Amphithéâtre Lumière**  
**Rockfalls / Chutes de blocs**

*Session Chairmans / Présidents de séance :*

*Jean Louis Durville (Ingénieur Général des Ponts et Chaussée, President CFGI),  
Dr Wayne Savigny (Vice President BGC Engineering Inc., Vancouver, Canada)*

100. 10h45-11h15. **Special lecture.** WOODARD M.J., BAKER M. Jr., SHAKOOR A. Development of a rock fall hazard rating matrix for Ohio USA
101. 11h15-11h30. COLAS BASTIEN, VINCENT MARC. Risk management of roads exposed to rock falling in the valleys of the Tarn and Jonte Rivers (Lozère France)
102. 11h30-11h45. MAYORAZ RAPHAEL, JACQUEMOUD JOSEPH. General verification of rock fall protection galleries along Swiss national roads : concept and methodology
103. 11h45-12h00. PAULY JEAN CLAUDE. Putting into security of the National Road 1 of the Isle of Reunion PR 3500 to 13500
104. 12h00-12h15. BATISTA DOMINIQUE, BINET CHRISTIAN, RAT MARCEL, ALFONSI PIETRO. An original risk control on a highway threatened by sea cliff's rockfalls. Optimisation of traffic regulation and rockfalls protections by statistical analysis.
105. 12h15-12h30. SAITO YOSHIYUKI, SHUZUI HARUO, NISHIDA AKIRA, WAKIZAKA YASUHIKO. Investigation of rock falls by laser profiler. Applicability and considerations of high hazard conditions
106. 12h30-12h45. BERTHET-RAMBAUD PHILIPPE, POTHERAT PIERRE, NOVELLAS FRANCOIS. A new rockfall test center in Europe

**25/05/2005 10h45-12h15**  
**Session 8B – Salle Sinclair 3**  
**Materials / Matériaux**

*Session Chairmans / Présidents de séance :*

*Dr Michel Deveughele (Secrétaire Général IAEG, Directeur CGI, EMP-ENPC-UMLV),  
Dr Lars Persson (Swedish Geological Survey)*

107. 10h45-11h00. LOUAFI BAHIA, DERRICHE Z. Effect of sand addition and the influence of its granularity on swelling characteristics of a pure clay
108. 11h00-11h15. DINO GIOVANNA ANTONELLA, FORNARO MAURO, LOVERA ENRICO, VIGLIERO L. Piedmont experience for the re-use of dimension stone quarrying by-products civil works wastes in the large public works
109. 11h15-11h30. PEKKA VALLIUS. Renovation of gravel roads by using dry bark residue ashes
110. 11h30-11h45. SABATAKAKIS N., KOUKIS G., SPYROPOULOS A. Quality assessment of pleio-pleistocene and recent quarternary coarse grained sediments as aggregates for road construction
111. 11h45-12h00. MALDONADO ALAIN, MESTAT PHILIPPE, GARNIER JACQUES. Risk analysis in the fields of geotechnical and road engineering Contributions from European large-scale research facilities
112. 12h00-12h15. SHAKOOR ABDUL, SHEVLIN TIMOTHY D. Use of lime kiln dust for stabilization of fine-grained subgrade soils

**25/05/2005 14h00-15h30**  
**Session 9 – Amphithéâtre Lumière**  
**Cavities / Cavités souterraines**

*Session Chairmans / Présidents de séance :*

*Pierre Potherat (Comité exécutif AIGI, CETE Lyon),*

*Wang Enzhi (Tsing Hua University, Beijing, China)*

- 113. 14h00-14h15. LARGILLIER JEAN-FRANÇOIS, PIRAUD JEAN, POITOUT MARIE-JOSEPHE. Suggestions for a Course of Action against the Risks due to Unstable Cavities under Highway and Railway Projects
- 114. 14h15-14h30. LAGABRIELLE RICHARD, GRANDSERT PHILIPPE. Comparison of cavities detection methods in a silt layer. Example of the SNCF test site along the Paris-Lille high speed line
- 115. 14h30-14h45. POTHERAT PIERRE, CHAHINE MARIANNE. Remote sensing applied to underground cavities localisation
- 116. 14h45-15h00. CURTIL STEPHANE, BUISSON MARC, KURDTS ANDREA. Crossing of an underground limestone quarry by the project of motorway A89. From the structural analysis to the building
- 117. 15h00-15h15. WANG ENZHI, WANG SIJING, HU BO, ZENG QINGBANG, LIU XIAOLI. Geomorphology of Deep Polya and Canyons and Its Influence on Route Planning of Highway in Guizhou Plateau, Southwest China
- 118. 15h15-15h30. GRESS J.C., LEFEBVRE GUY, KARRAY MOURAD, FAURE RENE-MICHEL. Detection of underground cavities from ground surface using rayleigh waves

**25/05/2005 15h45-16h15**  
**Amphithéâtre Lumière**  
**Closing ceremony/Cérémonie de Clôture**

**23-25/05/2005 16h00-17h00**  
**Poster Sessions**

**Session 1A-2A: Pipelines, offshore, electric lines / Pipelines, offshore, lignes à haute tension**

1. L'HENORET GUILLAUME, RAMAMBASOA NIRINA. Stability of slabs in soils submitted to vertical loading
2. KEATON JEFFREY R., GERACI JEFFREY, STUTZMAN BRIAN. Repairs of voids above Jack-and-Bore pipeline installations under a divided highway
3. GUANGRONG CAO, SHENGZU WANG, ZHENG FENG CHENG. 3S Technology applied to the survey of super voltage transmission line
4. LAGABRIELLE RICHARD. Deep sea electrical profiling for optical fibre cables burying assessment

**Session 1B-2B: Reconnaissance and testing methods / Méthodes de reconnaissance et d'essais**

5. CARNEC CLAUDIE, RAUCOULES DANIEL, KING CHRISTINE, LE MOUELIC STEPHANE, SIMONETTO ELISABETH. Ground deformation in the city of Paris detected by satellite radar interferometry
6. CHAHINE MARIANNE, DELHOMEL ALAIN. Remote-sensing and studies of linear routes: the example of the Eastern TGV
7. DE SLOOVERE PIERRE, BOUDIAF AZZEDINE. Accurate Insar Interferometry (PS Technique®). A new vision of soil and structure instrumentation
8. HOUY L., BREYSSE D., ELACHACHI S.M., VAILLANCOURT M. Impact of soil variability on linear structures
9. MALDONADO ALAIN, LE BECHEC JOËL. Platform of research facilities dedicated to the large-scale European infrastructures. TREE a tool for the European competitiveness
10. PUECH ALAIN, RIVOALLAN XAVIER, CHEREL LOUIS. Use of surface waves in on-land and underwater subsurface profiling
11. TÜDEŞ Ş., CERYAN Ş. The engineering characteristics and the weathering relationship of the granitic rock and rock masses occurred in Gümüşhane city area
12. VAN BAARS S., VAN DE GRAAF H.C. The determination of the permeability of soft soil from unconventional piezocone results

**Session 3A: Roads, highways, railways: reconnaissance / Routes, autoroutes, voies ferrées: reconnaissance**

13. DECK OLIVIER, LAUMONNIER BERNARD, MERRIEN-SOUKATCHOFF VERONIQUE. An original pedagogical experiment about linear projects
14. FERBER VALERY, AURIOL JEAN-CLAUDE. The influence of vertical stress on the collapse potential of a compacted silty soil. Importance for embankments
15. FONTANEL M., VEZOLE PIERRE. Reinforced embankments: SCUT Lanco C Motorway Project (Portugal)
16. GRESS J.C. Shrinkage risks for high embankments
17. HIRSCHAUER ALAIN. The South West deviation of Meaux geotechnical constraints
18. HU RUILIN, YUE ZHONGQI, WANG LICHAO, QU YONGXIN. The application of anorthose solution degree to evaluate the weathering degree of CDG SLOP of granites
19. MALDONADO ALAIN. Road Engineering practices dedicated to a Sustainable Development. Critical Test Facilities for a co-operation with developing countries
20. MAVLYANOV N.G., PETRUKHINA I.A. Geological and Engineering Problems of the Tashkent Metropolitan Construction

21. ONODA S., SASAKI Y., ANAN S., UENO S., TAKAYAMA T., ROAD SLOPE GIS RESEARCH GROUP. Experimental research and advancement of a Road Slope Hazard Map
22. SARRA PISTONE RAÚL, FREITAS RUI, BENTO JORGE. New Road Access to Funchal Port (Madeira Island – Portugal). Engineering Geological Studies and Design Options in a Volcanic Environment
23. REBELO VIRGILIO, FREITAS RUI, FORTUNATO EDUARDO. Engineering Geological Studies for the Highway A23 - Beira Interior Concession

### **Session 3B: Tunnels : Reconnaissance**

24. DONG-HYEON KIM. The Fire-Safety Countermeasure for Wind Flow near Twin Portals of Double Bore Tunnels
25. DOYURAN VEDAT. Assessment of groundwater inflow into a metro tunnel (Ankara)
26. GUITTARD JEROME, SOUVIGNET STEPHANIE, GASC-BARBIER MURIEL, VIRELY DIDIER. Field investigations realized for St Beat tunnel (France –31)
27. PARK H.D. Site investigation for tunneling in limestone area in Korea

### **Sessions 4A-4B: Roads, Highways, Railways, Tunnels : Construction and maintenance / Routes, autoroutes, voies ferrées, tunnels: construction et maintenance**

28. HOLEYMAN A. Environment-friendly Compaction for railway bridges in Almere (NL)
29. SHALABI FAISAL I., CORDING EDWARD J. 3D-Finite Element Analysis of Segmental Concrete Tunnel Lining Deformation and Moments under the Effect of Static and Earthquake Loading

### **Session 5B: Environment / Environnement**

30. RAPOSO JUAN, MOLINERO JORGE, DOCAMPO EVA. A project for long-term monitoring of hydrogeological impact produced by tunnel construction in fractured bedrocks

### **Session 6A: Lyon-Torino project and alpine tunnels / Projet Lyon Turin et tunnels alpins**

31. FABRE DENIS, LACOMBE P., ANTOINE P. Geotechnical investigations for the franco-italian base tunnel under the Alps and their contribution to Engineering Geology
32. MARECHAL JEAN-CHRISTOPHE. Temperature and water inflows in Alpine tunnels : contribution of numerical modeling and other methods of hydrogeology
33. SOLDI LUCA, EUSEBIO ATTILIO, GRASSO PIERGIORGIO, ENRIONE RICCARDO. Preliminary Geological Studies for the Design of Great Civil Infrastructures
34. STRZERZYNSKI PIERRE, GUILLOT STEPHANE, COURRIOUX GABRIEL, LELOUP HERVE, LEDRU PATRICK., DARMENDRAIL XAVIER. Integrative 3D geological modelling along the Lyon Turin Railway Project (Internal Briançonnais Domain of the Western Alps)

## **Session 6B: Slope stability - landslides / Stabilité des pentes - glissements de terrain**

35. BUDETTA P., DE RISO R., SANTO A. Landslide hazard and risk along the campanian roads (Italy)
36. CHAUBEAU JOELLE, FALCETTA JEAN LOUIS. Ouvrages géotechniques pour ouvrages linéaires
37. CHAUBEAU JOELLE, FALCETTA JEAN LOUIS. Ouvrages géotechniques pour ouvrages linéaires
38. CHEN JIANPING, GU XIANMIN, SHI BINFEI, FAN JIANHUA, LI XIAOCHUN. Man made slope deformation analysis at the site K108 on Jingzhu freeway near Shaoguang
39. CRUCHET MARC, NEDELLEC JEAN-LOUIS. Risk management of roads exposed to natural instabilities in the valley of Salazie (Réunion Island – France)
40. FU HE-LIN, ZHOU ZHONG, LUO QIANG, LONG WAN-XUE, TAN HAN-HUA. The characteristics of collapses and landslides and its prevention technologies in Guizhou of China
41. GÖRÖG PETER, TÖRÖK AKOS. Stability analysis of clay slopes of Budapest
42. HUANG RUNQIU, SHI YUCHUAN. Classification of Rock Mass Stability in Mountain Highway Slope
43. HUANG RUNQIU, WU LIZHOU. Research of soil-water characteristic curve of expansive soil at Xiaoxiang Expressway
44. JEREMIAS FILIPE, CRAVIDÃO JOSE. Slope Debris Failures During the Construction Works of Motorway A10 Bucelas – Arruda dos Vinhos Section
45. MOLINERO JORGE, SAMPER JAVIER. Quantitative evaluation of geological and hydrogeological uncertainties in slope stability analyses
46. ORNSTEIN PASCAL, JABOYEDOFF M., ROUILLER J.D. RANDADB : a versatile management system for landslides movements monitoring data
47. OZTEKIN BURAK. TOPAL TAMER. GIS-based analyses of a cut slope in limestone for the assessment of detachment zones
48. UENO S., SASAKI Y., ANAN S., ONODA S., ROAD SLOPE GIS RESEARCH GROUP. On the Making Guideline of Slope Hazard Mapping around Highway
49. ZHANG YUFANG, MA HUA, ZHANG CONGMING, HE KUN. Slope deformation and reinforcement of highway passing through major tectonic belts in southern Yunnan Province of China
50. LOLLINO G., ALLASIA P., BALDO M., GIORDAN D., RIVAROSSA C. Monitoring in continuous of landslides phenomena that interest the road network: the case of Gardiola landslide (Turin-Italy) and the Provincial Road N°169

## **Session 7B: Earthquakes and liquefaction, Canals and rivers / Séismes et liquéfaction des sols, Canaux et rivières**

51. MANAKOU M., RAPTAKIS D., CHAVEZ-GARCIA F.J., PITILAKIS K. Design of a complex 3D geological-geotechnical structure combining geotechnical geophysical and seismological data. The case of Mygdonian basin Greece
52. OLIVEIRA RICARDO, RODRIGUES VICENTE, PEREIRA DA SILVA A. Geological and Geotechnical Studies for Castanhão-Fortaleza Water Supply System (Brazil)
53. TSAY O.G. Influence of irrigational channels on a condition of the geological environment of a big industrial cities an example of Chirchik

### **Session 8A: Rockfalls / Chutes de blocs**

54. BERTHET-RAMBAUD PHILIPPE, PERROTIN P., MAZARS J. Impact on a Reinforced Concrete rock-shed slab: experimental tests and numerical modelling
55. CHAPEAU CHRISTIAN, GUILLEMIN PIERRE. Highway number 90 between Albertville and Bourg-Saint-Maurice, France: installation of a strategic road exposed to important rock falls risks
56. DUPRAY SEBASTIEN, DURVILLE JEAN LOUIS, BIDAUT PATRICK. High capacity direct shear facility for the study of rock-joints
57. GERMANI MANUELA, BARTOLINI ANDREA. Geological safety plan about regional roads (Region Tuscany Province Pistoia Italy)
58. GERMANI MANUELA, BARTOLINI ANDREA. Geological safety plan about regional roads (Region Tuscany Province Pistoia Italy)
59. MORALES T., URIARTE. J.A., URIBE-ETXEBARRIA G., IBARRA V. Rockfall hazard evaluation system in slopes of the Basque country (northern Spain)

### **Session 8B: Materials / Matériaux**

60. SEMCHA ABDELAZIZ, TROALEN JEAN PIERRE, MEKERTA BELKACEM. Maintenance of water restrain works and environmental consequences: survey of an algerian dam

### **Session 9: Cavities / Cavités souterraines**

61. HECTOR JEAN. Use of DTM for geomorphological analyzes applied to underground cavities surveys