

ICCCBE-X

***The Xth International Conference on
Computing in Civil and Building
Engineering***

Program

May 27, 2004

June 02-04, 2004, Weimar, Germany

Bauhaus-Universität Weimar

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GENERAL INFORMATION

VENUE

congress center neue weimarhalle (ccn weimarhalle)
UNESCO-Platz 1, 99423 Weimar, Germany
Tel: +49 (0) 3643 – 58 4215; Fax: +49 (0) 3643 – 58 4216
Web: <http://www.weimarhalle.de/en.html>
E-mail: info@weimarhalle.de

ICCCBE-X Conference Office: ccnw, Foyer (June 2-4)

GET TOGETHER

June 1 18:00-23:00 Kasseturm, Goetheplatz 10

This evening will give all participants the opportunity for first talks and contacts before the start of the actual conference program.

Inside the historical Kasseturm, a former tower of the city wall and nowadays a student pub, participants can enjoy the evening in a convivial and relaxing atmosphere. Original Thuringian grill specialties like Brätel and Roster as well as German beer will invite you to get acquainted with local food, to meet with other participants and to relax after completing your trip to Weimar. “Get together” is intended as an informal prelude for the forthcoming, busy three days of working. The Kasseturm is located centrally in the city opposite of the main post office 2 minutes away from the ICCCBE venue (see: city map).

REGISTRATION

June 2 8:30-10:00 Conference Office

For a later registration please contact our staff at the Conference Office.

BOD MEETING

June 3 15:00-18:00 VIP Lounge

NOTES FOR PAPER PRESENTERS

The time allocated for presentation and subsequent discussion depends on the number of contributions in a session:

- Sessions with 2 contributions: 40 minutes presentation time + 5 minutes discussion
- Sessions with 3 contributions: 25 minutes presentation time + 5 minutes discussion
- Sessions with 4 contributions: 17 minutes presentation time + 5 minutes discussion
- Sessions with 5 contributions: 13 minutes presentation time + 5 minutes discussion
- Sessions with 6 contributions: 10 minutes presentation time + 5 minutes discussion

It is required that all presenters adhere to the time limitation specified for their presentation including introduction procedures and discussion time. This will be strictly enforced by the Session Chairmen.

Presenters are suggested to meet their Session Chairman as soon as possible – but not later than 15 minutes before the start of the session – in order to confirm their attendance, exchange any additional information, and be briefed on the logistics for the session.

Each presenter is required to deliver the completed Presenter’s CV Form (attached at the end of this Program and distributed at the conference venue) to the Session Chairman at least 15 minutes before the start of the session. This information will be used by the Chairman to introduce the presenter.

In each presentation room a video projector will be available: Our local staff will assist presenters in connecting their notebooks. Presenters without own notebooks should notify us via e-mail iccbe@uni-weimar.de and should contact our staff at the Conference Office: A limited number of notebooks can be made available at the conference venue.

Presenters using overhead slides should notify us via e-mail iccbe@uni-weimar.de and should contact our staff at the Conference Office: A limited number of overhead projectors can be made available at the conference venue.

NOTES FOR SESSION CHAIRMEN

All presenters in a session are required to complete and deliver the Presenter’s CV Form at least 15 minutes before the start of the session in the respective presentation room. Before each presentation, please give a brief introduction on the presenter, based on the information provided on the Presenter’s CV Form.

The time allocated for presentations is given in “Notes for Paper Presenters” (see above). Please ensure that this time limitation is strictly adhered to. In case there are anticipated absences, the Chairmen at their discretion may adjust the time allocated for each paper so that the total time available can be fairly and effectively allocated.

EXHIBITION

Poster presentations as well as an exhibition of professional software solutions will be included as part of the conference. Several vendors of software for Civil and Building Engineering have already committed their participation. This will be an excellent opportunity for getting informed about the state and the development of software solutions available in Germany.

INTERNET CAFÉ

All participants of ICCCBE are invited to use our Internet Café at the conference venue (1st level) free of charge.

CONFERENCE DINNER

June 4 18:00-23:00 Wachsenburg (bus transfer included)

The Wachsenburg is part of the much fabled castles „Drei Gleichen“ („Three Equals“). It rises as a gateway at an important trade route above the foreland of Thuringia since the 13th century and offers a unique panorama over the Thuringian basin.

All participants will be invited to a medieval plate/ rustic buffet from the castle's cuisine as well as beer and wine from the castle's cellar in a historical environment. Dinner will be held in the knight hall, the dungeon und the castle tent. Musicians and knights as well as a dancer will provide for distraction and entertainment with exciting performances after the strenuous days at the conference. Let yourself be surprised by the artists with a fire show at the end.

SOCIAL PROGRAM

June 2 17:00-19:00 Guided sightseeing tours of Weimar and Guided tours of the "Bauhaus" (in English)

Please register at the Conference Office. Meeting Point is the Conference Office.

June 2 20:00 Organ Concert

Organ Concert at the Town Church of St. Peter and Paul (Herder Church), 5 min. walk from cen weimarhalle, information at the conference office

June 3 15:00-17:00 Guided sightseeing tours of Weimar (in English) Guided tours of the "Bauhaus" (in English)

Please register at the Conference Office. Meeting Point is the Conference Office.

June 3 17:00-19:00 Guided sightseeing tours of Weimar (in English)

Please register at the Conference Office. Meeting Point is the Conference Office.

All of the activities listed above are included in the conference registration.

June 5 9:00-18:30 Toskana Therme Tour

Includes a trip by bus to the Toskana Therme in Bad Sulza (30 km from Weimar) - a prize-winning wooden construction designed by an engineer from Bauhaus-University. It houses a famous recreation facility that won several awards under the concept Toskana Therme-Liquid Sound in the Tuscany of the East. Walk to the replica of the Goethe Garden-house. Journey along the vineyards to a family farm-museum with an authentic cooking prepared on open fire. Participate in a wine-tasting with the Thuringian wine-princess, to experience the most northern wineries of

Germany. Visit the salina structure for salt works (length: 320 m, height:20 m) and the skillful leverage of the power train (length: 180 m + 132 m) in Bad Kösen.

More information is available at <http://www.uni-weimar.de/icccbex/social03.html>.

This activity is not included in the conference registration and needs to be booked separately.

QUESTIONS OR SUGGESTIONS?

If you have any questions or suggestions concerning the organization of ICCCBE-X then please do not hesitate to contact us!

Acknowledgement

The conference has been generously supported by the German Research Foundation (Deutsche Forschungsgemeinschaft). The German Research Foundation is the central, self-governing research organization that promotes research at universities and other publicly financed research institutions in Germany. The organizers of ICCCBE-X are very grateful for the valuable support by the German Research Foundation.

The German Research Foundation is also sponsor of the Collaborative Research Center (SFB 524) on "Materials and Constructions for the Revitalization of Structures" at Bauhaus-Universität Weimar. The Collaborative Research Center provided a valuable background and infrastructure for the purposes of ICCCBE-X. The corresponding support by the German Research Foundation and by the "Thuringian Ministry for Science, Research and Art" is thankfully acknowledged.

Bauhaus-Universität Weimar has supported the preparation and organization of ICCCBE-X in many ways. ICCCBE-X was accepted officially by Bauhaus-Universität as an important factor for the international reputation of Bauhaus-Universität thus deserving the necessary attention and support of the university.

The faculty of Civil Engineering is the professional home of many people involved in the success of ICCCBE-X. The faculty of Civil Engineering will celebrate its 50th birthday in June 2004 documenting a successful period of teaching and research in civil engineering, material sciences, mathematics and computer science in Weimar.

Finally, several "Cooperation Partners" listed below contributed to the success of the conference. Their contributions are also thankfully acknowledged.

Cooperation Partners

ISCCBE – International Society for Computing in Civil and Building Engineering
Bauhaus-Universität Weimar

ASCE – American Society of Civil Engineers

IABSE – International Association for Bridge and Structural Engineering

eg-ice.org – European Group for Intelligent Computing in Engineering

Autodesk GmbH Deutschland

Bentley Systems

Cisco Systems

EAPPM – European Association of Product and Process Modelling in the Building Industry

HOCHTIEF

IEZ Software Consulting & Services GmbH

Internetservice Kohlhaas

Lombego Systems

Nemetschek AG

RIB Software AG

Sofistik AG

Bauhaus Weiterbildungsakademie Weimar e.V.

Scientific Committee

Pahl, P. J. (GERMANY)

Emkin, L. Z. (USA)

Hsieh, S.-H. (TAIWAN)

Anumba, C. J. (UK)

Arciszewski, T. (USA)

Barinova, L. S. (RUSSIA)

Bedard, C. (CANADA)

Cheung, M. S. (CANADA)

Choi, C.-K. (KOREA)

Choo, B. S. (UK)

Fenves, S. J. (USA)

Fruchter, R. (USA)

Garrett, J. (USA)

Gero, J. (AUSTRALIA)

Kalay, Y. (USA)

Koike, H. (JAPAN)

Law, K. (USA)

Lu, J.M. (China)

Meissner, U. (GERMANY)

Miles, J. (UK)

Ren, A. (CHINA)

Roddis, K. (USA)

Smith, I. (SWITZERLAND)

Soibelman, L. (USA)

Zhu, B. (CHINA)

Organizing Committee

Kirschke, H.; Bauhaus-Universität Weimar (Chairman)

Diez, C.; Bauhaus-Universität Weimar (Secretary)

Program Committee

Beucke, K.; Bauhaus-Universität Weimar (Chairman)

Firmenich, B.; Bauhaus-Universität Weimar

Donath, D.; Bauhaus-Universität Weimar

Fruchter, R.; Stanford University

Roddis, K.; University of Kansas

SESSION DIRECTORY

June 2 , Wednesday						
Time	Wing Hall 1	(Seminar) Room 1	(Seminar) Room 2	(Seminar) Room 3	(Seminar) Room 5	(Seminar) Room 4
08:30-10:00	Registration					
10:00-10:30	Large Hall: Welcome Address K. Beucke; Chairman of ICCCBE-X P. J. Pahl, President of ISCCBE W. Bauer-Wabnegg; Rector of Bauhaus-Universität Weimar					
10:30-12:00	-S121- Large Hall: ENCORD Session (2) [K. Beucke]					
12:00-13:30	Lunch					
13:30-15:00	-S131- Industry Session (4) [K. Beucke]	-S132- Network-Based Co-operation in Structural Engineering – 1 (4) [U. Meissner]	-S133- Collaborative design, planning processes and systems: How do architects, engi- neers, specialists and construction manager colla- borate today? – 1 (3) [D. Donath]	-S134- Software Platforms / Frameworks (4) [M. Huhn]	-S135- FEM / Structural Analysis – 1 (5) [P. Milbradt]	
15:00-15:30	Coffee Break					
15:30-17:00	-S141- Computational Management – 1 (4) [K. Beucke]	-S142- Network-Based Co-operation in Structural Engineering – 2 (4) [U. Rüppel]	-S143- Collaborative design, planning processes and systems: How do architects, engi- neers, specialists and construction manager colla- borate today? – 2 (4) [F. Petzold]	-S144- Technologies for Data Collection and Information Access on the Jobsite – 1 (5) [J. Garrett]	-S145- FEM / Structural Analysis – 2 (5) [S. Holzer]	-S146- Geographic Information Systems - GIS (4) [P. Katranuschkov]
17:15-18:00	Large Hall: Panel Discussion [K. Beucke, D. Donath]					

June 3 , Thursday

Time	Wing Hall 1	(Seminar) Room 1	(Seminar) Room 2	(Seminar) Room 3	(Seminar) Room 5
08:30-10:00	-S211- Large Hall: Keynote Session P. Bernstein				
10:00-10:30	Coffee Break				
10:30-12:00	-S221- Traffic Simulation (4) [V. Berkhahn]	-S222- Multi-Agent Systems – 1 (4) [M. Schnellenbach-Held]	-S223- Collaborative design, planning processes and systems: How do architects, engineers, specialists and construction manager collaborate today? – 3 (5) [C.-J. Schink]	-S224- Construction Data Life-Cycle (acquisition, management, mining, knowledge discovery) – 1 (5) [L. Soibelman]	-S225- FEM / Structural Analysis – 3 (4) [C. Könke]
12:00-13:30	Lunch				
13:30-15:00	-S231- Computational Management – 2 (4) [P. J. Pahl]	-S232- Multi-Agent Systems – 2 (4) [T. Arciszewski]	-S233- Product Model based Simulation in Civil Engineering – 1 (4) [E. Rank]	-S234- Knowledge Management (3) [M. Nagl]	-S235- ASCE-TCCIT- Sessions – 1 (3) [R. Fruchter]
15:00-15:30	Coffee Break				
15:30-17:00	-S241- Computational Management – 3 (5) [W. Huhnt]	-S242- Product Models in Network Based Co-operation in Structural Engineering (6) [B. Firmenich]	-S243- Product Model based Simulation in Civil Engineering – 2 (5) [M. Krafczyk]	-S244- Construction Data Life-Cycle (acquisition, management, mining, knowledge discovery) – 2 (5) [B. Akinci]	-S245- ASCE-TCCIT- Sessions – 2 (6) [K. Roddis]

June 4 , Friday					
Time	Wing Hall 1	(Seminar) Room 1	(Seminar) Room 2	(Seminar) Room 3	(Seminar) Room 5
08:30-10:00	-S311- Computer-Aided Instruction in Civil Engineering –1 (4) [S.-H. Hsieh]	-S312- Network-Based Co-operation in Structural Engineering – 3 (4) [D. Hartmann]	-S313- Conceptual Design of Structures – 1 (5) [J. Miles]	-S314- Product Model based Simulation in Civil Engineering – 3 (4) [A. Kiviniemi]	-S315- Technologies for Data Collection and Information Access on the Jobsite – 2 (5) [K.Menzel]
10:00-10:30	Coffee Break				
10:30-12:00	-S321- Computer-Aided Instruction in Civil Engineering – 2 (4) [N. Gebbeken]	-S322- Collaborative design, planning processes and systems: How do architects, engi- neers, specialists and construction manager colla- borate today? – 4 (5) [F. Molkenthin]	-S323- Conceptual Design of Structures – 2 (4) [I. Parmee]	-S324- Product Model based Simulation in Civil Engineering – 4 (4) [H.-J. Bargstädt]	-S325- Multi-Agent Systems – 3 (4) [C. Anumba]
12:00-13:30	Lunch				
13:30-15:00	-S331- Collaborative design, planning processes and systems: How do architects, engi- neers, specialists and construction manager colla- borate today? – 5 (5) [J. Diaz]	-S332- Network-Based Co-operation in Structural Engineering – 4 (4) [H. Koike]	-S333- ICT Research into Construction Reality – Results of European Cooperative Research Building, a better Future: Major Results from (5) [R. J. Scherer]	-S334- Construction Data Life-Cycle (acquisition, management, mining, knowledge discovery) – 3 (4) [C. Caldas]	-S335- Multi-Agent Systems – 4 (4) [A. Albert]
15:00-16:30	Break				
16:30-17:00	Large Hall: Closing Session				
17:00-23:00	Departure: 17:00, north entrance of the ccn weimarhalle Conference Dinner: 18:00 bis 23:00				

Rooms: Conference Office, Large Hall, Wing Hall 1, VIP Lounge, (Seminar) Room 1, (Seminar), Room 2, (Seminar) Room 3, (Seminar) Room 4, (Seminar) Room 5

SOCIAL PROGRAM

DAY of Arrival June 1, 2004

18:00-23:00 "Get together" **Kasseturm**

DAY I June 2, 2004

17:00-19:00 Guided sightseeing tours of Weimar (in English),
Guided tours of the "Bauhaus" (in English),
Meeting Point: ccn weimarhalle, Conference Office

20:00-20:30 Organ Concert
Town Church of St. Peter and Paul (Herder Church)

DAY II June 3, 2004

15:00-17:00 Guided sightseeing tours of Weimar (in English),
Guided tours of the "Bauhaus" (in English),
Meeting Point: ccn weimarhalle, Conference Office

17:00-19:00 Guided sightseeing tours of Weimar (in English),
Meeting Point: ccn weimarhalle, Conference Office

DAY of Departure June 5, 2004

09:00-18:30 Toskana Therme Tour **Bad Sulza**

SCIENTIFIC PROGRAM

DAY I June 2, 2004

08:30-10:00	Registration	Conference Office
10:00-10:30	Welcome Address <i>BEUCKE, KARL; Chairman of ICCCBE-X</i> <i>PAHL, PETER JAN; President of ISCCBE</i> <i>BAUER-WABNEGG, WALTER; Rector of Bauhaus-Universität Weimar</i>	Large Hall
10:30-12:00	S121: ENCORD Session <i>Chairman: BEUCKE, KARL; Bauhaus-Universität Weimar</i> #176: Virtual Construction for our Industry - an Advantage now, a Necessity soon [-] <i>KATZER, WOLFGANG (HOCHTIEF AG, Germany)</i> #184: Utilisation of Virtual Construction Solutions; Common Challenges [-] <i>WOUDENBERG, WILFRED (BAM Utiliteitsbouw bv, Netherlands)</i>	Large Hall
12:00-13:30	Lunch	...
13:30-15:00	S131: Industry Session <i>Chairman: BEUCKE, KARL; Bauhaus-Universität Weimar</i> #251: New procedures for a computer-aided optimization of the investment- and operating-costs of buildings during their service life [-] <i>SANIO, HANS-PETER (RIB Software AG)</i> #164: Structural Analysis, Design and Detailing using Standard CAD Software and Standard [p. 340] <i>FINK, THOMAS (SOFiSTiK AG)</i> #201: Building Design towards 5-Dimensions [p. 338] <i>KABATH, MEIK; STUYTS, PATRICK (IEZ Software, Consulting & Services GmbH)</i> #L003: Considering the ICE-Railway Station Erfurt as example: From 2D Drawings to the 3D Object-oriented Model [-] <i>WILDERMUTH, GUNTHER (Nemetschek AG)</i>	Wing Hall 1
13:30-15:00	S132: Network-Based Co-operation in Structural Engineering – 1 <i>Chairman: MEISSNER, UDO; Technische Universität Darmstadt</i> #46: Octrees for Cooperative Work in a Network-Based Environment [p. 104] <i>MUNDANI, RALF-PETER; BUNGARTZ, HANS-JOACHIM</i> #92: Design of an Analysis Environment for Planning Decision Support [p. 90] <i>LÄHR, ANDRÉ; BLETZINGER, KAI-UWE</i>	Room 1

#98: Net-distributed Cooperation Including Developing Countries – Practical Case Study Iran [p. 98]
ESLIMY-ISFAHANY, S.H.R.; PEGELS, GEORG

#99: Support of Collaborative Structural Design Processes through the Integration of Peer-to-Peer and Multiagent Architectures [p. 107]
ALDA, SASCHA; HARTMANN, DIETRICH

13:30-15:00 S133: Collaborative design, planning processes and systems: How do architects, engineers, specialists and construction manager collaborate today? – 1 Room 2
Chairman: DONATH, DIRK; Bauhaus-Universität Weimar

#33: Information Exchange in the Construction Industry. The Particular Case of Green Buildings [p. 146]
RODRIGUEZ, ADHAMINA

#104: Parametric Technology in Building Information Modelling [-]
WINZENHÖLLER, JÖRG; DZAMBAZOVA, TATJANA

#192: A Survey on Application of Information Technologies in Chinese Construction Industry [p. 138]
JIANPING, ZHANG; DONGPING, XIANG; ZHILIANG, MA

13:30-15:00 S134: Software Platforms / Frameworks Room 3
Chairman: HUHN, MICHAEL; Universität Wuppertal

#196: Developing CORBA-based distributed control and building performance environments by run-time coupling [p. 86]
YAHIAOUI AZZEDINE; HENSEN, JAN; SOETHOUT, LUC, TNO

#116: Distributed STEP-Compliant Platform for Multi-Modal Collaboration in Architecture, Engineering, and Construction [p. 318]
SEMENOV, VITALY; BAZHAN, ANDREW; MOROZOV, SERGEY

#21: BABSIM - An Object-oriented Software Framework for Microscopic Simulation of Freeway Traffic [p. 316]
ERLEMANN, KAI

#56: Application of a Hybrid Parallelization Technique to Accelerate the Numerical Simulation of Nonlinear Mechanical Problems [p. 314]
MOST, THOMAS; ECKARDT, STEFAN

13:30-15:00 S135: FEM / Structural Analysis – 1 Room 5
Chairman: MILBRADT, PETER; Universität Hannover

#63: A Prismatic Finite Element for Accurate Arch Dam Analysis. [p. 286]
MIRONOV, VADIM; PAHL, PETER JAN

#9: Development and Analysis of Sparse Matrix Concepts for Finite Element Approximation on General Cells [p. 294]
PICK, TOBIAS; HEIMSUND, BJØRN-OVE; MILBRADT, PETER

#78: Material Characterization using Artificial Neural Network [p. 206]
SWADDIWUDHIPONG, SOMSAK; THO, KEE KIAT; LIU, ZISHUN; HUA, JUN

#91: A model adaptive and model reduction strategy combining system-theoretical methods and substructuring [-]
RICKELT, CHRISTIAN; REESE, STEFANIE

#17: Study on Analysis System for Bridge Testing [p. 300]
KE, CHEN; JIAN MING, LU

15:00-15:30 Coffee Break

...

15:30-17:00 S141: Computational Management – 1

Wing Hall 1

Chairman: BEUCKE, KARL; Bauhaus-Universität Weimar

#58: Interaction of Data Bases and Graphical Interfaces in Civil Engineering [p. 120]
BILTCHOUK, IRINA; PAHL, PETER JAN

#96: Progress Measurement in Planning Processes on the Base of Process Models [p. 126]
HUHNT, WOLFGANG

#100: Structural Correctness of Planning Processes in Building Engineering [p. 132]
KÖNIG, MARKUS; KLINGER, AXEL; BERKHAHN, VOLKER

#168: A Flexible Model for Scheduling Building Processes based on Graph Theory and Fuzzy Numbers [p. 110]
FREUNDT, MARTIN; BEUCKE, KARL

15:30-17:00 S142: Network-Based Co-operation in Structural Engineering – 2

Room 1

Chairman: RÜPPEL, UWE; Technische Universität Darmstadt

#101: Network-Based Fire Engineering Supported by Agents [p. 102]
MEISSNER, UDO; RÜPPEL, UWE; THEISS, MIRKO

#103: A Petri Net based Method for Distributed Process Modelling in Structural Engineering [p. 84]
RÜPPEL, UWE; MEISSNER, UDO; GREB, STEFFEN

#108: Notes on Structural Analysis in a Distributed Collaboratory [p. 103]
VAN ROOYEN, GERT C.

#109: An Application-centred Framework for Distributed Engineering Applications [p. 87]
OLIVIER, ALBERTUS H.

15:30-17:00 S143: Collaborative design, planning processes and systems: How do architects, engineers, specialists and construction manager collaborate today? – 2

Room 2

Chairman: PETZOLD, FRANK; Bauhaus-Universität Weimar

#193: Plausibility in Architectural Design – Software Support for the Architect-Oriented Design of Colour Schemes for Interiors and Buildings [-]
DONATH, DIRK; TONN, CHRISTIAN

#194: Plausibility in Architectural Design – Software Support for the Formal Shaping and Architect-oriented Design of Shell Structures [p. 158]
TONN, CHRISTIAN; WOLKOWICZ, CHRISTIAN; THUROW, TORSTEN; RUTH, JÜRGEN; DONATH, DIRK; STAHR, ALEXANDER

#95: Life Cycle Optimized System Solutions for Densified Housing with Massive Wood Technology [-]
ZWÖLFER, MICHAEL; THOMAS, PETER; SCHINK, CLAUS-JÜRGEN; KOCH, VOLKER

#113: An Empirical Study Relating Construction Firm Performance and IT Utilization [p. 142]
EL-MASHALEH, MOHAMMAD; O'BRIEN, WILLIAM

15:30-17:00 S144: Technologies for Data Collection and Information Access on the Jobsite – 1 **Room 3**

Chairman: GARRETT, JAMES; Carnegie Mellon University,

#22: Novel Technologies for Construction Field Data Collection [p. 42]
LIU, LIANG; SOIBELMAN, LUCIO; TRUPP, TORSTEN

#30: Web-based Information Systems: Data Monitoring, Analysis, and Reporting for Measurements and Simulations [p. 54]
MOLKENTHIN, FRANK

#39: Using Entropy to Maximize the Usefulness of Data Collection [p. 52]
ROBERT-NICOUD, YVAN; RAPHAEL, BENNY; SMITH, IAN F.C.

#161: About the Implantation Process of Mobile Computing in AEC [p. 38]
EISENBLÄTTER, KARIN; MENZEL, KARSTEN; SCHERER, RAIMAR J.

#170: Real Time Geotechnical Field Data Acquisition using a Distributed Approach [p. 46]
JASELSKIS, EDWARD; WHITE, DAVID; WALTERS, RUSSELL; ZHANG, JIANZHONG

15:30-17:00 S145: FEM / Structural Analysis – 2 **Room 5**

Chairman: HOLZER, STEFAN; Universität der Bundeswehr München

#41: Finite Cell-element of higher Order [p. 296]
MILBRADT, PETER; SCHIERBAUM, JOCHEN; SCHWÖPPE, AXEL

#215: Application of Multimodel Method of Elasto-plastic Analysis for the Multilevel Computation of Structures [p. 290]
MELNIKOV, BORIS; SEMENOV, ARTEM

#188: A Nouvelle Approach for Predicting the Shear Cracking Angle in RC And PC Beams using Artificial Neural Networks [p. 204]
TAHA, M.M. REDA; SHERIF, ALAA; HEGGER, JOSEF; GÖRTZ, STEFAN

#47: Lifetime-oriented Modelling of Vortex-induced Across-wind Vibrations on Bridge Tie Rods [p. 298]
GALFFY, MOZES; WELLMANN-JELIC, ANDRES; HARTMANN, DIETRICH

#1: Additional Bending Moment for Shear Lag Phenomenon in Tube Structures [p. 288]
LEE, KANGKUN; LEE, KIJANG

15:30-17:00 S146: Geographic Information Systems – GIS **Room 4**

Chairman: KATRANUSCHKOV, PETER; Technische Universität Dresden

#123: A Study on the Relationships of Residential Electricity Consumption and Automobile Energy Consumption with Urban Forms using GIS [p. 330]
KOIKE, HIROTAKE; MORIMOTO, AKINORI; IMAMURA, MAKI; NAKAI, HIDENOBU

#84: Development of a System for Making Guide Maps Based on the Idea of the Cognitive Map [p. 332]
MONOBE, KANTARO; TANAKA, SHIGENORI; FURUTA, HITOSHI

#149: Large Scale Finite Element Simulation and Modeling using GIS/CAD for Environmental Flows in Urban Area [p. 334]
KASHIYAMA, KAZUO; HAMADA, HIDETAKE; TANIGUCHI, TAKEO

#208: Research and Application on Highway Construction Visual Management Information System Based on the Network and GIS [p. 336]
GONG, DEJUN; HUANG, LIMANG; CHEN, XI

17:15-18:00 Panel Discussion

Large Hall

Moderators: BEUCKE, KARL; DONATH, DIRK; Bauhaus-Universität Weimar

BERNSTEIN, PHIL; Autodesk Inc.

FINK, THOMAS; SOFiSTiK AG

REIMANN, JÜRGEN; IEZ Software, Consulting & Services GmbH

SANIO, HANS-PETER; RIB Software AG

WILDERMUTH, GUNTHER; Nemetschek AG

DAY II June 3, 2004

08:30-10:00 S211: Keynote Session

Large Hall

#102: Old Wine in New Bottles: Can Technology Truly Change the Building Industry?
BERNSTEIN, PHIL; autodesk Building Solutions Division

10:00-10:30 Coffee Break

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10:30-12:00 S221: Traffic Simulation

Wing Hall 1

Chairman: BERKHAHN, VOLKER; Universität Hannover

#207: Development of an Urban Land Use Model to Compare Transit-oriented and Automobile-oriented Cities [p. 322]

KOIKE, HIROTAKA; MORIMOTO, AKINORI; NOMURA, KAZUHIRO

#45: Modeling of Freeway Traffic [p. 324]

ROSE, MARTIN

#125: Research on Establishment of Traffic Impact Assessment Standards with Integrated Database System [p. 326]

OSADA, TEPPEI; KOIKE, HIROTAKA; MORIMOTO, AKINORI

#213: The Analysis of Dynamic Behaviour of Pre-stressed Systems under Polyharmonic Excitations [p. 328]

VOLKOVA, VIKTORIJA

10:30-12:00 S222: Multi-Agent Systems – 1

Room 1

Chairman: SCHNELLENBACH-HELD, MARTINA; University of Duisburg-Essen

#209: Towards a Semantic Grid Computing Platform for Disaster Management in Built Environment [p. 201]

AZIZ, ZEESHAN; ANUMBA, CHIMAY; MILES, JOHN; RUIKAR, DARSHAN; BOUCLAGHEM, DINO; CARRILLO, PAT

#89: Research on Intelligent Fuzzy Optimal Active and Hybrid Control Systems of Building Structures - Verification of Optimization Method on Switching Rules of Control Forces - [p. 198]

TAKAGI, KOUSUKE; TANI, AKINORI; KAWAMURA, HIROSHI

#107: Distributed Evolutionary Design: Island-Model-based Optimization of Steel Skeleton Structures in Tall Buildings [p. 190]

KICINGER, RAFAL; ARCISZEWSKI, TOMASZ; DE JONG, KENNETH

#165: Acquisition of Conceptual Design Knowledge in Structural Engineering [p. 182]

ALBERT, ANDREJ; FREISCHLAD, MARK; PULLMANN, TORBEN; SCHNELLENBACH-HELD, MARTINA

10:30-12:00 S223: Collaborative design, planning processes and systems: How do architects, engineers, specialists and construction manager collaborate today? – 3

Room 2

Chairman: SCHINK, CLAUDIUS-JÜRGEN; Universität Karlsruhe

#178: The Building as a Container of Information -The Starting Point for Project Development and Design Formulation [p. 164]

PETZOLD, FRANK; DONATH, DIRK

#29: Web-based Collaborative Engineering based on Information Sharing [p. 168]
MOLKENTHIN, FRANK

#121: Interdisciplinary Cooperation Modules in Mobile Networks [p. 152]
SCHINK, CLAUS-JUERGEN; KOCH, VOLKER

#128: Integrated Planning of Buildings based on Computer Models in Project Communication Systems [p. 148]
PETERSEN, MICHAEL; DIAZ, JOAQUIN

#82: Design of Rapidly Assembled Patient Wards - IT-supported Collaborative Design and Process between Architects and Medical Officers [p. 144]
TSOU, JIN-YEU; LAM, SELINA; WONG, GARY WING KIN; CHOW, BENNY

10:30-12:00 S224: Construction Data Life-Cycle (acquisition, management, mining, knowledge discovery) – 1 Room 3
Chairman: SOIBELMAN, LUCIO; University of Illinois at Urbana-Champaign

#23: Data Fusion and Modeling for Construction Management Knowledge Discovery [p. 69]
LIU, LIANG; SOIBELMAN, LUCIO; WU, JIANFENG

#26: The Re-use of Site Data to Inform Business Processes [p. 76]
WARD, MICHAEL; THORPE, TONY; PRICE, ANDREW; WREN, CLIFF

#74: Towards Domain-Oriented Semi-Automated Model Matching for Supporting Data Exchange [p. 80]
GARRETT, JAMES; AKINCI, BURCU; WANG, HONGJUN; AKIN, OMER; TURKASLAN-BULBUL, TANYEL; GURSEL, IPEK

#115: Spatial Data Acquisition, Integration, and Modeling for Real-time Project Life Cycle Applications [p. 74]
CHANGWAN, KIM; HAAS, CARL; CALDAS, CARLOS; LIAPI, KATHERINE

#137: Towards Automated Defect Detection: Object-oriented Modeling of Construction Specifications [p. 78]
BOUKAMP, FRANK; AKINCI, BURCU

10:30-12:00 S225: FEM / Structural Analysis – 3 Room 5
Chairman: KÖNKE, CARSTEN; Bauhaus-Universität Weimar

#13: Efficient Shoring System in RC Frame Structures [p. 295]
KWAK, HYO-GYOUNG; KIM, JIN-KOOK

#227: Deflection Calculation of RC Beams: Finite Element Software versus Design Code Methods [p. 292]
KAKLAUSKAS, GINTARIS; CERVENKA, VLADIMIR; CERVENKA, JAN; GRIBNIAK, VIKTOR; VAINIUNAS, POVILAS

#117: Voronoi-based Finite Volume Method for Transport Problems [p. 302]
KAAPKE, KAI; MILBRADT, PETER

#83: A Calculation of Initial Cable Force for Ko-Ha Bridge [p. 284]
NOH, JUNG-HWI; PARK, JONG-HEON

12:00-13:30 Lunch

...

13:30-15:00 S231: Computational Management – 2 **Wing Hall 1**
Chairman: PAHL, PETER JAN; Technische Universität Berlin

#119: Distributed Computing for Optimal Planning of Large-Scale Construction Projects [p. 114]
EL-RAYES, KHALED; KANDIL, AMR

#35: Investigate the Impact of Different Resource Allocation Strategies on the Design of Building Projects Using Simulation [p. 124]
ZANELDIN, ESSAM

#59: Structural and Functional Dependence of Objects in Data Bases [p. 130]
PEREVALOVA, JULIA; PAHL, PETER JAN

#173: Cost- and Schedule Control for Liquidity Management during Construction Progress [p. 112]
KOPYTO, MARTIN; PETERSEN, MICHAEL; DIAZ, JOAQUIN; MÖLLER, ARMIN

13:30-15:00 S232: Multi-Agent Systems – 2 **Room 1**
Chairman: ARCISZEWSKI, TOMASZ; George Mason University

#34: A Development of the Building Kansei Information Retrieval System [p. 174]
TSUTSUMI, KAZUTOSHI; HASHIMOTO, HIROMI

#114: Intelligent Link Management for the Support of Integration in Building Life Cycle [p. 194]
WILLENBACHER, HEIKO; HÜBLER, REINHARD

#189: A Framework of Management Information System for Construction Projects [p. 176]
MA, ZHILIANG; QIN, LIANG

#218: Risk-sensitive Markov Decision Process for Tunnel Construction Planning and Estimating [p. 200]
LIKHITRUANGSILP, VEERASAK; IOANNOU, PHOTIOS

13:30-15:00 S233: Product Model based Simulation in Civil Engineering – 1 **Room 2**
Chairman: RANK, ERNST; Technische Universität München

#72: Feature-based Product Modeling for Building Construction [p. 237]
STAUB-FRENCH, SHERYL

#75: Requirements Management Interface to Building Product Models [p. 252]
KIVINIEMI, ARTO; FISCHER, MARTIN

#42: Integrated Life Cycle Simulation and Assessment of Buildings [p. 240]
NEUBERG, FRANK; RANK, ERNST; EKKERLEIN, CHRISTIAN; FAULSTICH, MARTIN

#51: Effective Cost Estimate and Construction Processes with 3D-interactive Technologies: Towards a Virtual World of Construction Sites [p. 236]
BARGSTÄDT, HANS-JOACHIM; BLICKLING, ARNO

13:30-15:00 S234: Knowledge Management **Room 3**
Chairman: NAGL, MANFRED; Aachen University of Technology (RWTH Aachen)

#73: An Evaluation System for Steel Structures of Hydroelectric Power Stations Based on Fault Tree Analysis and Performance Maps [p. 306]
YABUKI, NOBUYOSHI; YOSHIMURA, YUTAKA

#222: Civil Engineering Decision Support Systems in Lithuania [p. 308]
ZAVADSKAS, EDMUNDAS-KAZIMIERAS; KAKLAUSKAS, ARTURAS; RASLANAS, SAULIUS

#252: Knowledge Management for Small and Medium Contractors [p. 310]
*PALANEESWARAN, EKAMBARAM; KUMARASWAMY, MOHAN; NG, THOMAS; UGWU, ONUGBU;
ANUMBA, CHIMAY; RAHMAN, MOTIAR*

13:30-15:00 S235: ASCE - TCCIT - Session – 1 Room 5
Chairman: FRUCHTER, RENATE; Stanford University

#143: AEC Global Teamwork: Emergent Work Processes [p. 212]
FRUCHTER, RENATE; CHAO, YUNN CHYI

#24: Collaborative Design Processes: A Class on Concurrent Collaboration in Multidisciplinary Design
[p. 218]
SOIBELMAN, LUCIO; O'BRIEN, WILLIAM; ELVIN, GEORGE

#141: Collaborative Exploration of Rich Content in Support of Knowledge Re-use [p. 220]
FRUCHTER, RENATE; SAXENA, KUSHAGRA; BREIDENTHAL, MATT

15:00-15:30 Coffee Break ...

15:30-17:00 S241: Computational Management – 3 Wing Hall 1
Chairman: HUHNT, WOLFGANG; Technische Universität Berlin

#106: Integrated Engineering Workflow focused on the Structural Engineering in the Industrial Environment
[p. 118]
PALM, JOHAN

#142: Groundwater-Monitoring based on Co-operative eGovernment-Processes [p. 116]
RÜPPEL, UWE; GUTZKE, THOMAS

#159: Internet-based Workflow-Management for Civil Engineering Projects [p. 122]
RÜPPEL, UWE; KLAUER, THOMAS

#162: Resource Management for the Construction Industry [p. 128]
*MENZEL, KARSTEN; WAGNER, ULF; KELLER, MARTIN; ANTONIADIS, GEORGE; CAIRES BRANCO,
ANA SOFIA;*

#L002: Evaluating IT Applications for Innovative Construction Management [-]
CHEN, ZHEN; KONG, STEPHEN C. W.; LI, HENG; XU, QIAN

15:30-17:00 S242: Product Models in Network Based Co-operation in Structural Engineering Room 1
Chairman: FIRMENICH, BERTHOLD; Bauhaus-Universität Weimar

#43: A Concept for CAD Systems with Persistent Versioned Data Models [p. 270]
BEER, DANIEL G.; FIRMENICH, BERTHOLD; RICHTER, TORSTEN; BEUCKE, KARL

#38: Interactive Distributed Knowledge Support for Conceptual Building Design [p. 276]
KRAFT, BODO; WILHELMS, NILS

#48: Abstract and Concrete Scenarios in Concurrent Engineering [p. 272]
HUHN, MICHAEL

#16: Generic Services for the Support of Evolving Building Model Data [p. 274]
WEISE, MATTHIAS; KATRANUSCHKOV, PETER; SCHERER, RAIMAR J.

#180: Knowledge Based Systems in Distributed Design Environments [p. 278]
SCHNELLENBACH-HELD, MARTINA; HARTMANN, MARKUS

#44: Product Models in Network-based Co-operation in Structural Engineering [p. 280]
FIRMENICH, BERTHOLD

15:30-17:00 S243: Product Model based Simulation in Civil Engineering – 2 Room 2

Chairman: KRAFCZYK, MANFRED; Technische Universität Braunschweig

#28: Structural Analysis based on the Product Model Standard IFC [p. 253]
ROMBERG, RICHARD; NIGGL, ANDREAS; VAN TREECK, CHRISTOPH; RANK, ERNST

#204: Analysis of Building Structure and Topology based on Graph Theory [p. 232]
VAN TREECK, CHRISTOPH; RANK, ERNST

#140: A Product Model based Approach to Interactive CAE Design Optimization [p. 230]
FAHRIG, TORSTEN; NACHTWEY, BJÖRN; GELLER, SEBASTIAN; TÖLKE, JONAS; KRAFCZYK, MANFRED

#50: Product Models and Life Cycle Data Management in Real Projects [-]
HÄNNINEN, REIJO; LAINE, TUOMAS

#68: Optimization of 4D Process Planning using Genetic Algorithms [p. 242]
VOGEL, MANFRED; BREIT, MANFRED; MÄRKI, FABIAN; SUTER, MARC A.

15:30-17:00 S244: Construction Data Life-Cycle (acquisition, management, mining, knowledge discovery) – 2 Room 3

Chairman: AKINCI, BURCU; Carnegie Mellon University

#12: Data Acquisition, Processing, and Management Systems for a Canadian Bridge Monitoring Project [p. 68]
CHEUNG, MOE M. S.; NORUZIAAN, BAHMAN; LI, W.C.

#54: A Four Layer Bayesian Network for Product Model Based Information Mining [p. 60]
SCHAPKE, SVEN-ERIC; SCHERER, RAIMAR J.

#67: Data Transfer and Objects Recognition in Building Design [p. 70]
PAVLOV, ALEXANDER

#124: A Virtual Life Cycle Structured Platform for Building Applications [p. 62]
VON BOTH, PETRA; KOHLER, NIKLAUS; GESSMANN, ROBIN

#182: Application of Data Warehouse and Data Mining in Construction Management [p. 66]
JIANPING, ZHANG; TIANYI, MA; QIPING, SHEN

15:30-17:00 S245: ASCE - TCCIT - Session – 2 Room 5

Chairman: RODDIS, KIM; University of Kansas

#130: An Information Infrastructure for Comparing Accessibility Regulations and Related Information from Multiple Sources [p. 214]
LAU, GLORIA; LAW, KINCHO

#144: A Simulation Access Language and Framework for Project Management Applications [p. 210]
CHENG, JINXING; LAU, GLORIA; LAW, KINCHO

#150: Chance Discovery of Reusable AEC Knowledge from a Corporate Memory [p. 216]
FRUCHTER, RENATE; DEMIAN, PETER; SAXENA, KUSHAGRA

#205: How to Prevent Project Knowledge Management Failures in Construction – IT Enabled Communication Perspective [p. 224]
HAAPALAINEN, PÄIVI; NAARANOJA, MARJA; LONKA, HEIKKI

#174: Developments in Hyper Real-Time Simulation of Transient Heat-Flow in Buildings [p. 222]
FLOOD, IAN; ISSA, RAJA; ABI-SHDID, CAESAR

#32: Numeric Prediction Algorithms for Bridge Corrosion [p. 226]
MELHEM, HANI; CHENG, YOUSHENG

DAY III June 4, 2004

08:30-10:00 S311: Computer-Aided Instruction in Civil Engineering – 1 Wing Hall 1

Chairman: HSIEH, SHANG-HSIEN "PATRICK"; National Taiwan University

#76: Project Oriented Learning Environment (POLE-Europe) [p. 16]

BREIT, MANFRED; KÜNDIG, DANIEL; HÄUBI, FRITZ

#94: An Approach for Promoting Knowledge Exchange on Production Practices through the Internet [p. 2]

SCHEER, SERGIO; DOS SANTOS, AGUINALDO; HINKS, JOHN

#167: On Computer-Aided Instruction Tools for Teaching College Engineering Mechanics Related Courses [p. 14]

HSIEH, SHANG-HSIEN; CHEN, CHUIN-SHAN; SHYU, HSIN-YIH; LEU, LIANG-JENQ; LIU, KO-FEI; LU, CHO-CHIEN; CHANG, KUO-YI

#226: Modules for the Education of Civil Engineers and the Management of Expert Knowledge [p. 12]

GEBBEKEN, NORBERT; PFEIFFER, EBERHARD; VIDEKHINA, INNA

08:30-10:00 S312: Network-Based Co-operation in Structural Engineering – 3 Room 1

Chairman: HARTMANN, DIETRICH; Ruhr-Universität Bochum

#37: Scenarios for the Deployment of Distributed Engineering Applications [p. 106]

LEHNER, KARLHEINZ; HARTMANN, DIETRICH

#118: Network Based Co-operation Platform for Geotechnical Engineering [p. 100]

SCHLEY, FRANK; MEJSTRIK, MARCUS; HOLZ, K.-PETER; SAVIDIS, STAVROS

#132: Integration of Product Model Databases in Multi-Agent-Systems [p. 96]

HARTMANN, DIETRICH; MEISSNER, UDO; RÜPPEL, UWE; BILEK, JOCHEN; THEISS, MIRKO

#166: Graphical Online Collaboration using a Peer-to-Peer-based Publish / Subscribe Communication Model [p. 92]

HARTMANN, ULRICH C.

08:30-10:00 S313: Conceptual design of structures – 1 Room 2

Chairman: MILES, JOHN; Cardiff University

#136: Analysis and Design of Hybrid Structures using Optimization Strategies [p. 20]

RAUE, ERICH; WEITZMANN, RÜDIGER

#155: Fractal Truss Structure and Automatic Form Generation Using Iterated Function System [p. 26]

ASAYAMA, SHUICHI; MAE, TOSHIFUMI

#157: Object Oriented Finite Element Analysis for Structural Optimization using p-Elements [p. 32]

BAITSCH, MATTHIAS; HARTMANN, DIETRICH

#185: A Framework for Computer-Aided Conceptual Design of Building Structures [p. 18]

BÉDARD, CLAUDE; MORA, RODRIGO; RIVARD, HUGUES

#203: Linking Sketching and Constraint Checking for Early Conceptual Design [p. 30]

MILES, JOHN; CEN, MEI; TAYLOR, MARK

08:30-10:00 S314: Product Model based Simulation in Civil Engineering – 3

Room 3

Chairman: KIVINIEMI, ARTO; Stanford University

#64: Automated Simulation of the Erection Activities in Virtual Construction [p. 234]

KANG, SHIHCHUNG; MIRANDA, EDUARDO

#65: Physics Based Model for Simulating the Dynamics of Tower Cranes [p. 248]

KANG, SHIHCHUNG; MIRANDA, EDUARDO

#112: Virtual Construction using Map-Based Approach [p. 254]

SEMENOV, VITALY; ALEKSEEVA, ELENA; TARLAPAN, OLEG

#87: Physically based Modeling and Multi-physical Simulation System for Wood Structure Fire Performance [p. 246]

GAO, ZUOREN; WU, WEIYU; REN, AIZHU

08:30-10:00 S315: Technologies for Data Collection and Information Access on the Jobsite – 2

Room 5

Chairman: MENZEL, KARSTEN; Technische Universität Dresden

#18: Information Technology used in Highway and Bridge Engineering [p. 40]

JIAN MING, LU; KE, CHEN

#69: Supporting Domain Experts in Determining Viable User Interface Designs for Wearable Computers used in AEC Work Situations [p. 50]

BÜRGY, CHRISTIAN; GARRETT, JAMES H.

#105: SiDaCoS: Product and Process Models at the Work Face [p. 48]

REINHARDT, JAN; GARRETT, JAMES H.; AKINCI, BURCU

#138: An Approach for Planning Sensor-Based Inspection of the Built Environment [-]

GORDON, CHRIS; AKINCI, BURCU; GARRETT, JAMES H.

#179: Numerical Analysis for Prediction as to Influence of Digging a Tunnel on Groundwater [p. 44]

SUZUKI, AKETO

10:00-10:30 Coffee Break

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10:30-12:00 S321: Computer-Aided Instruction in Civil Engineering – 2

Wing Hall 1

Chairman: GEBBEKEN, NORBERT; Universität der Bundeswehr München

#145: Developing Learning Objects for a Structural Engineering Educational Network [p. 6]

SCHEER, SERGIO; GAMA, CARMEN LÚCIA G.

#191: Development of Partial Scoring Assessment System for Reinforcement Concrete Design Course [p. 10]

CHOU, YU-HUR; HSIEH, SHANG-HSIEN

#200: Development and Application of CAD Software in the Field of Building Structures in China [p. 8]

LEE, YUNGUI

#221: Calculation of Beam Structures with the Symbolic Computer Language Maple [p. 4]

GEBBEKEN, NORBERT; PFEIFFER, EBERHARD; VIDEKHINA, INNA

10:30-12:00 S322: Collaborative design, planning processes and systems: How do architects, engineers, specialists and construction manager collaborate today? – 4 Room 1
Chairman: MOLKENTHIN, FRANK; Brandenburgische Technische Universität Cottbus

#70: A Research about the Automatic Construction of Web/3D Model House from 2D Digital Pictures [p. 136]

KITAGAWA, ESTUJI; TANAKA, SHIGENORI; FURUTA, HITOSHI; SUGIMACHI, TOSHIYUKI

#183: A Vision of an Adaptive Geometry Model for Computer-assisted Building Surveying [p. 140]

THUROW, TORSTEN; DONATH, DIRK

#186: Preparation and Provision of Building Information for Planning within Existing Built Contexts [p. 160]

WENDER, KATRIN; DONATH, DIRK; PETZOLD, FRANK

#79: Modeling of Buildings and Roads for Urban Applications based on 2D Digital Maps [p. 154]

REN, AIZHU; SHI, JIANYONG; XU, YUN

#177: New Techniques in Building Surveying [p. 156]

PETZOLD, FRANK; BARTELS, HEIKO; DONATH, DIRK

10:30-12:00 S323: Conceptual design of structures – 2 Room 2
Chairman: PARMEE, IAN; University of the West of England

#14: Determination of Span Length Ratios in Bridges Constructed by a Balanced Cantilever Method [p. 22]

KWAK, HYO-GYOUNG; SON, JE-KUK

#158: Distributed Computing of Failure Probabilities for Structures in Civil Engineering [p. 24]

WELLMANN JELIC, ANDRÉS; BAITSCH, MATTHIAS; HARTMANN, DIETRICH; SPITZLEI, KARSTEN; BALLNUS, DANIEL

#147: Internet-Enabled Software Model for Nonlinear Structural Analysis and Simulations [p. 28]

PENG, JUN; LAW, KINCHO; LAU, GLORIA

#206: User-centric Evolutionary Conceptual Design Systems - the Visualisation of Emerging Multi-objective Design Information [p. 34]

PARMEE, IAN; ABRAHAM, JOHNSON

10:30-12:00 S324: Product Model based Simulation in Civil Engineering – 4 Room 3
Chairman: BARGSTÄDT, HANS-JOACHIM; Bauhaus-Universität Weimar

#36: Particle Simulation and Evaluation of Personal Exposure to Contaminant Sources in an Elevation Space [p. 244]

SHIH, NAAI-JUNG; LEE, WEN-PANG

#81: Development of Thermal Simulation Tool for Urban Block Design – Based on Numerical Simulation System using 3D-CAD – [-]

HOYANO, AKIRA; NAKAOHKUBO, KAZUAKI; ASAWA, TAKASHI

#85: Product Modelling in the Steel Construction Domain [p. 250]

HOLTZHAUER, ERIC; SAAL, HELMUT

#111: Highway Sequence Editor based on the Length-based Highway Product Model [p. 238]

MAKANAE, KOJI

10:30-12:00 S325: Multi-Agent Systems – 3

Room 5

Chairman: ANUMBA, CHIMAY; Loughborough University

#27: Development of a Fuzzy System for Change Prediction in Construction Projects [p. 188]
MOTAWA, IBRAHIM; ANUMBA, CHIMAY; EL-HAMALAWI, A.; CHUNG, P.; YEOH, M.

#97: Optimal Design for Recurrent Architecture Network Harmonized with Circulation-type Societies by Applying Genetic Algorithms to Multi-agent Model [p. 196]
YAMABE, YUICHIRO; KAWAMURA, HIROSHI; TANI, AKINORI

#120: A Multi-objective Model for Optimizing Construction Planning of Repetitive Infrastructure Projects [p. 178]
EL-RAYES, KHALED; HYARI, KHALIED

#224: Database of Best Practices and Decision Support Web-based System for Construction Innovation [p. 186]
ZAVADSKAS, EDMUNDAS-KAZIMIERAS; KAKLAUSKAS, ARTURAS; VITEIKIENE, MILDA

12:00-13:30 Lunch

...

13:30-15:00 S331: Collaborative design, planning processes and systems: How do architects, engineers, specialists and construction manager collaborate today? – 5 Wing Hall 1

Chairman: DIAZ, JOAQUIN; Fachhochschule Gießen

#49: Re-engineering based on Construction Drawings – From Ground Floor Plan to Product Model – [p. 162]
BERKHAHN, VOLKER; KINKELDEY, CHRISTOPH; SCHLEINKOFER, MATTHIAS; RANK, ERNST

#195: Integration of Constraints into Digital Building Models for Cooperative Planning Processes [p. 150]
HAUSCHILD, THOMAS; BORRMANN, ANDRÉ; HÜBLER, REINHARD

#198: VRML Virtual Worlds - An Alternative to the Desktop Metaphor for GUIs [p. 166]
MILES, JOHN; TAYLOR, MARK; ANUMBA, CHIMAY; BOUCLAGHEM, DINO; CEN, MEI; SHANG, HUIPING

#216: XML-based Vector Graphics: Application for Web-based Design Automation [p. 170]
KANG, JULIAN; LHO, BYEONG-CHEOL; KIM, JEONG-HOON; KIM, YOUNG-NO

#L001: Implementation of Web Services to Enable Interoperability of Web-based Construction Products Catalogue [-]
KONG, STEPHEN C. W.; LI, HENG; ANUMBA, CHIMAY; CHEN, ZHEN

13:30-15:00 S332: Network-Based Co-operation in Structural Engineering – 4

Room 1

Chairman: KOIKE, HIROTAKA; Utsunomiya University

#197: Collaborative Engineering: Virtual Teams in a Grid Environment Supporting Consortia in the Construction Industry [p. 88]
MILES, JOHN; JOITA, LIVIU; BURNAP, PETER; PAHWA, JASPREET; GRAY, ALEX; RANA, OMER

#214: Increasing the Reliability and Performance through Automatisations and Parallel Working [p. 94]
GEBBEKEN, NORBERT; BAUMHAUER, ANDREAS; IONITA, MIHAI

#175: Abstraction of Process-Relevant Information from Geotechnical Standards and Regulations [-]
KATZENBACH, ROLF; MEISSNER, UDO F.; RÜPPEL, UWE; SAVIDIS, STAVROS A.; GIÈRE, JOHANNES; GREB, STEFFEN; MEJSTRIK, MARCUS

#181: Coordinating Planning Processes in AEC using an Adaptable Process Model [-]
KATZENBACH, ROLF; GIÈRE, JOHANNES

13:30-15:00 S333: ICT Research into Construction Reality - Results of European Cooperative Research **Room 2**

Chairman: SCHERER, RAIMAR J.; Technische Universität Dresden

#254: Building a better Future: Major Results from the ICCI Cluster Project [p. 258]

ZARLI, ALAIN; STORER, GRAHAM; KAZI, ABDUL SAMAD (SAMI); BOURDEAU, MARC

#255: User Requirements Capture in Distributed Project Environments: A Process-Centred Approach [p. 264]

KATRANUSCHKOV, PETER; GEHRE, ALEXANDER; SCHERER, RAIMAR J.; WIX, JEFFREY; LIEBICH, THOMAS

#256: Working Together: ICT Infrastructures to Support Collaboration [p. 266]

CEROVSEK, TOMO; TURK, ZIGA

#257: Collaboration in Construction: Legal and Contractual Issues in ICT Applications [p. 260]

HASSAN, TAREK; SHELBOURN, MARK; CARTER, CHRIS

#258: ICT Adoption in the Construction Sector: Education and Training Issues [p. 262]

REZGUI, YACINE; WILSON, IAN E.; DAMODARAN, LEELA; OLPHERT, WENDY; SHELBOURN, MARK

13:30-15:00 S334: Construction Data Life-Cycle (acquisition, management, mining, knowledge discovery) – 3 **Room 3**

Chairman: CALDAS, CARLOS; University of Texas Austin

#127: Establishing of Fundamentals in Building Projects using Web Services [p. 72]

PETERSEN, MICHAEL; SEEWALD, GERRIT

#135: A Case Study of IFC and CIS/2 Support for Steel Supply Chain Processes [p. 58]

O'BRIEN, WILLIAM; DANSO-AMOAKO, MARK; ISSA, RAJA

#153: Structure of a Formal User Model for Construction Information Retrieval [p. 75]

XIE, HAIYAN; ISSA, RAJA R. A.; O'BRIEN, WILLIAM

#190: An Approach to Utilizing Exchanged Documents in Construction Projects based on Data Warehouse Technology [p. 64]

MA, ZHILIANG; WONG, K.D.; YANG, JUN

13:30-15:00 S335: Multi-Agent Systems – 4 **Room 5**

Chairman: ALBERT, ANDREJ; Krebs und Kiefer GmbH

#15: Application of a Agent Mechanism to the Small-Scale Maintenance of School Buildings [p. 184]

CHANG, CHIHYUAN; CHANG, YUANCHU; HUANG, SHYHMENG

#52: Implementation of an Agent-based Bidding Consortium in the Architecture of an Agent-based Virtual Marketplace [p. 192]

GEIBIG, OLIVER; SCHNELLENBACH-HELD, MARTINA

#60: Elements of an Agent-based Mediative Communication Protocol for Design Objects [p. 191]

ABDALLA, JAMAL

#154: A Steel Bridge Design System Architecture using VR-CAD and Web Service-based Multi-Agents [p. 180]

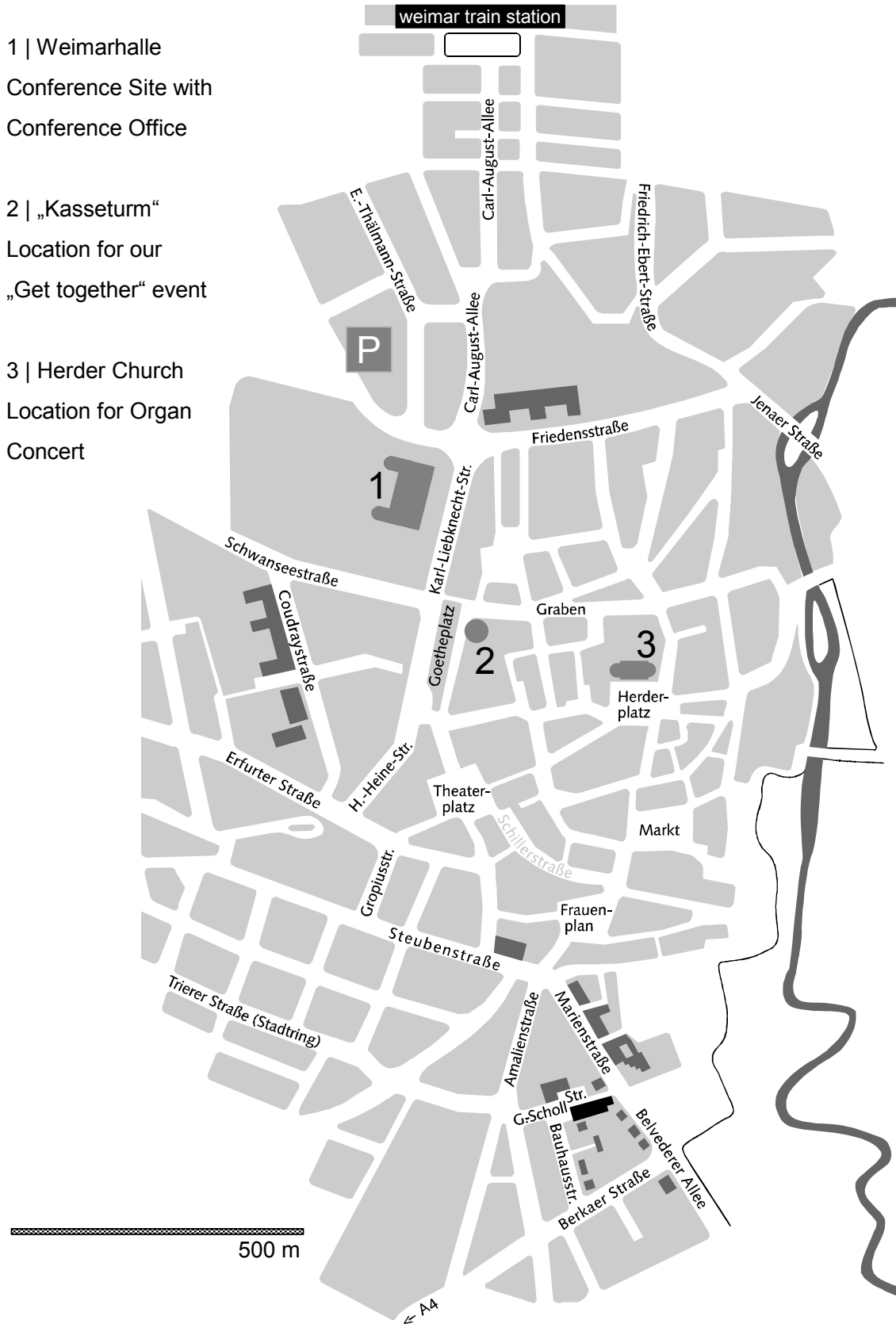
YABUKI, NOBUYOSHI; KOTANI, JUN; SHITANI, TOMOAKI

15:00-16:30 Break

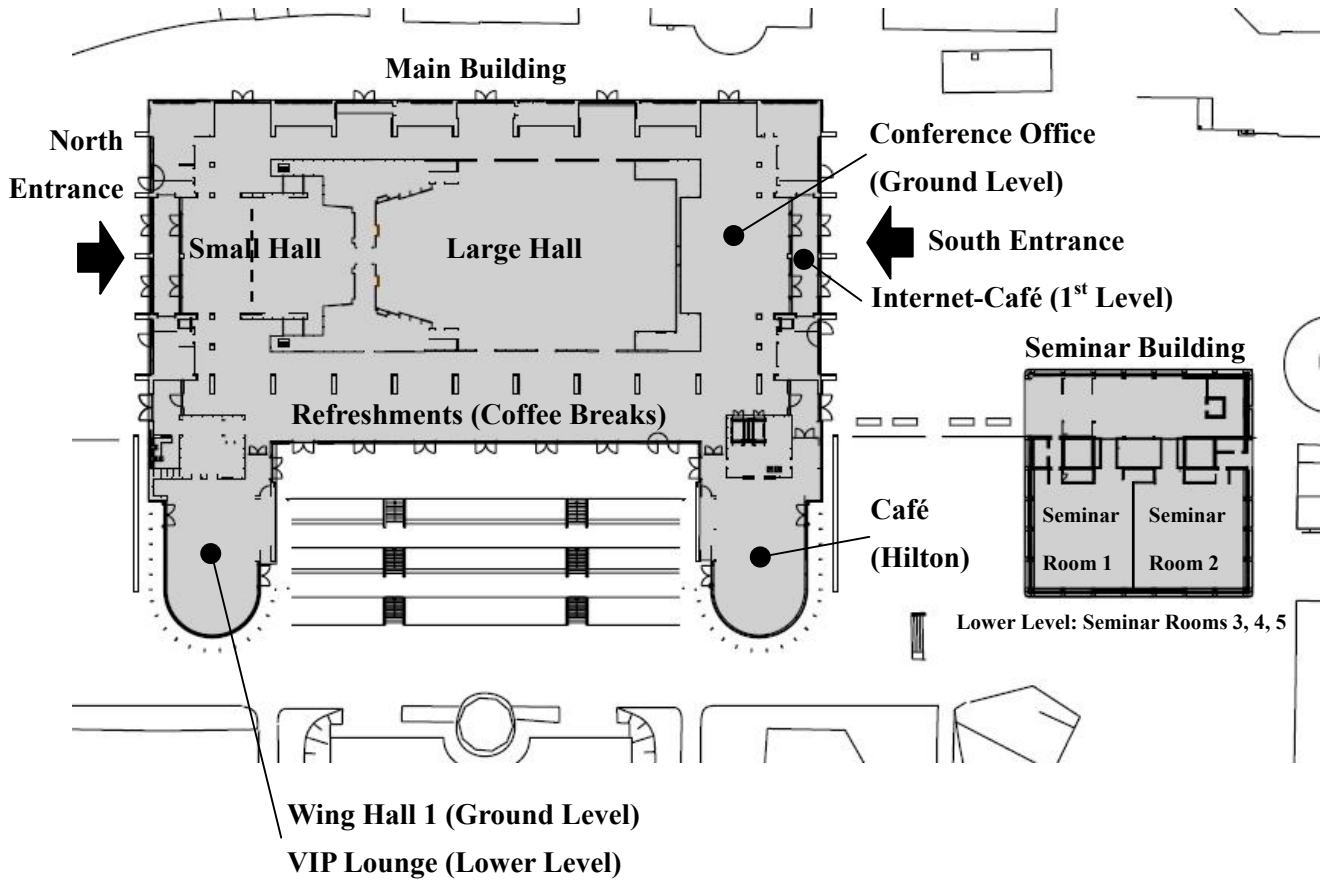
...

16:30-17:00	Closing Session	Large Hall
17:00	Departure by bus to Castle Wachsenburg	ccn weimarhalle, North Entrance
18:00-23:00	Conference Dinner	Castle Wachsenburg

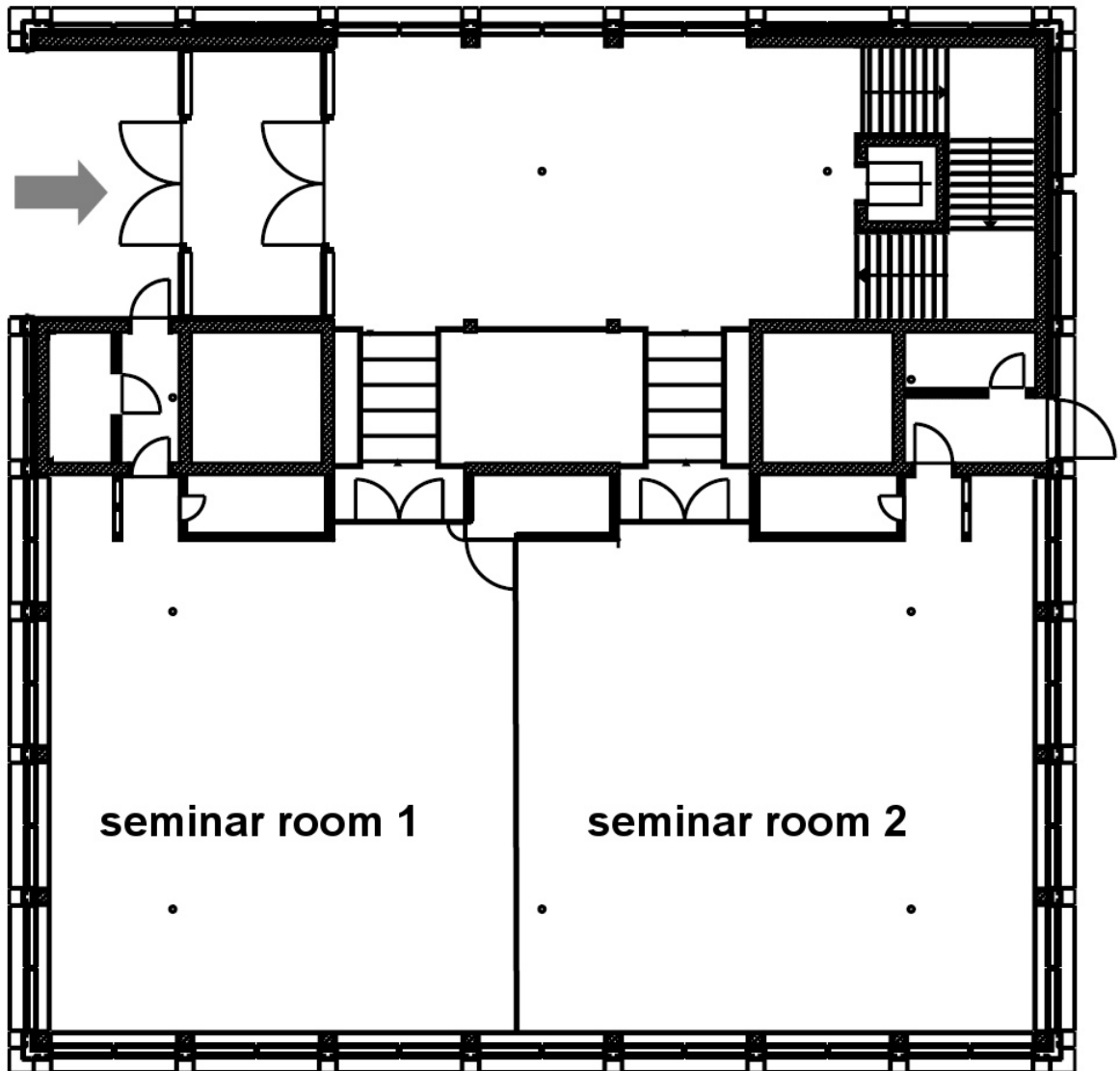
City Map of Weimar



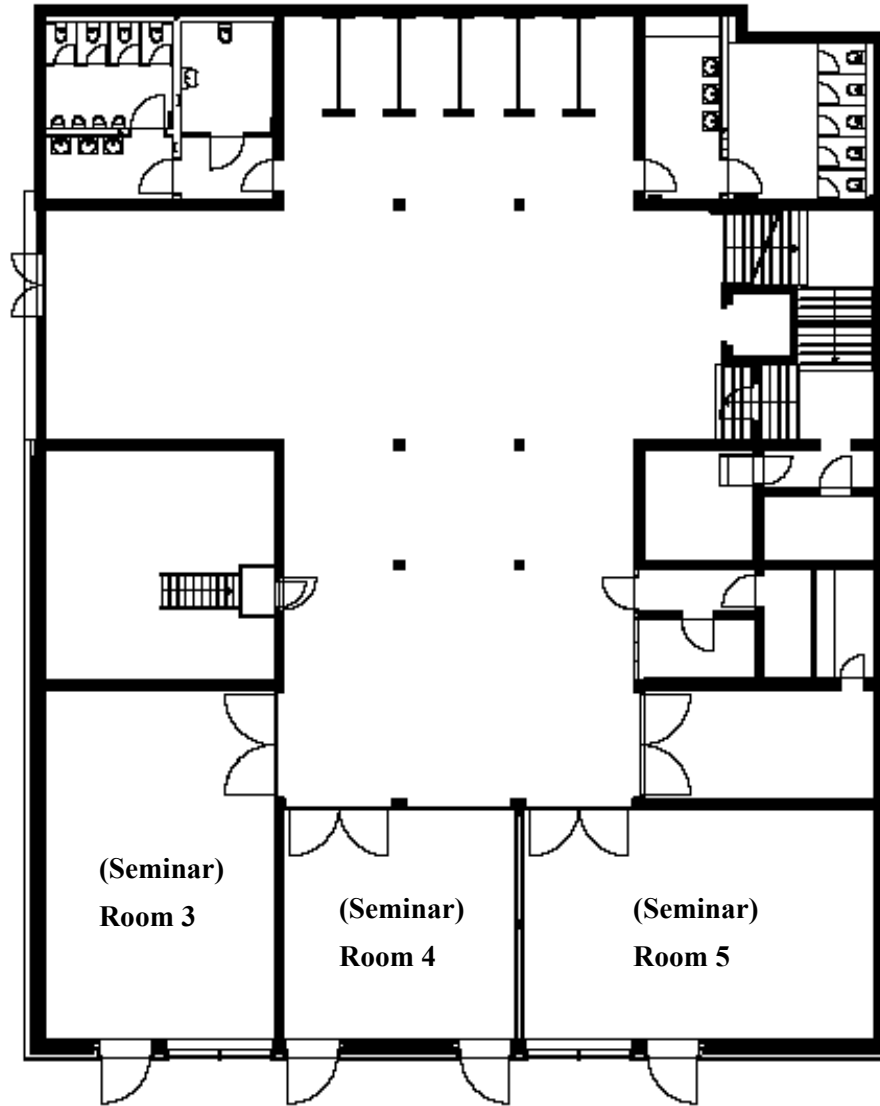
ccn weimarhalle



ccn weimarhalle – Seminar Building – Ground Level



ccn weimarhalle – Seminar Building – Lower Level



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