Universität Hamburg

Fakultät für Erziehungswissenschaft Psychologie und Bewegungswissenschaft

ICTMA 14

27-31 July 2009

14th International Conference on the Teaching of Mathematical Modelling and Applications

University of Hamburg

PROGRAMME

CONFERENCE SCHEDULE

	Sunday 26-7-09	Monday 27-7-09	Tuesday 28-7-09	Wednesday 29-7-09	Thursday 30-7-09	Friday 31-7-09
9.00-10.20		Registration (8.00-9.30) Opening ceremony (9.30-10.00)	Plenary lecture Stillman Discussant: Borromeo Ferri	Plenary lecture Neunzert Discussant Struckmeier	Plenary lecture Haines Discussant Maaß	Plenary lecture Doerr, Lesh (9.30-11.00)
10.30-11.15		Plenary lecture Blum Discussant Borba (10.00-11.20)	Parallel sessions 7	Parallel sessions 14	Parallel sessions 18	
11.15-11.45		Coffee break	Coffee break	Coffee break	Coffee break	Coffee break 11.00-11.30
11.45-12.30		Parallel sessions 1	Parallel sessions 8	Parallel sessions 15	Parallel sessions 19	Panel discussion (11.30-13.00)
12.35-13.20		Parallel sessions 2	Parallel sessions 9	Parallel sessions 16	Parallel sessions 20	Closing ceremony (13.00-13.30)
13.20-14.15		Lunch	Lunch	Lunch	Lunch	Lunch
14.15-15.00		Parallel sessions 3	Parallel sessions 10	Parallel sessions 17	Parallel sessions 21	
15.05-15.50		Parallel sessions 4	Parallel sessions 11		Parallel sessions 22	
15.50-16.15		Coffee break	Coffee break		Coffee break	
16.15-17.00	Registration	Parallel sessions 5	Parallel sessions 12	Official reception by State of Hamburg	Parallel sessions 23	
17.05-17.50	Registration	Parallel sessions 6	Parallel sessions 13		Business meeting	
18.00-19.00	Registration	Welcome reception				
19.00-	Welcome gathering	Welcome reception -19.30		Harbour cruise	Conference dinner	

PROGRAMME OVERVIEW

Monday, 27-7-09

Time				
08.00-09.30	Registration (Lobby)			
09.30-10.00	Opening Ceremony (Lecture Hall)			
10.00-11.20	Plenary lecture Blum Discussant Marcelo de Carvalho Borba Chair: Kaiser (Lecture Hall)			
11.20-11.45	Coffee break (Lobby)			
	Room 206	Room 208	Room 211	Room 212
11.45-12.30	*Parallel sessions 1 (A)* TERTIARY EDUCATION Paavola / Salonen	*(B)* TEACHER EDUCATION Eichler / Girnat	*(C)* EXAMPLES Andresen	*(D)* COMPETENCIES Biccard / Wessels, D.
12.35-13.20	*Parallel sessions 2* TERTIARY EDUCATION Deprez	TEACHER EDUCATION Wessels, H.	EXAMPLES Humenberger	COMPETENCIES Zöttl / Ufer / Reiss
13.20-14.15	Lunch (Mensa)			
14.15-15.00	*Parallel sessions 3* TERTIARY EDUCATION Dan / Xie	TEACHER EDUCATION Stillman / Brown	EXAMPLES Kato / Venâncio	COMPETENCIES Ludwig / Xu
15.05-15.50	*Parallel sessions 4* TERTIARY EDUCATION Narayanan/Klymchuk / Gruenwald/Sauerbier/ Zverkova	TEACHER EDUCATION Lingefjärd	EXAMPLES Graumann	COMPETENCIES Henn
15.50-16.15	Coffee break (Lobby)			
16.15-17.00	*Parallel sessions 5* TERTIARY EDUCATION Alpers	TEACHER EDUCATION Wagner, R. / Niehaus	EXAMPLES Kotelawala	COMPETENCIES Frejd / Ärlebäck
17.05-17.50	*Parallel sessions 6* TERTIARY EDUCATION Wu / Wang	TEACHER EDUCATION Shirazian / Mulhall / Jones	EXAMPLES Brandl	COMPETENCIES Engel / Kuntze
18.00-19.30	Welcome reception (Lobby, Café)			

Tuesday 28-7-09

Time				
9.00-10.20	Plenary lecture Stillman Discussant: Borromeo Ferri Chair: Ikeda (Lecture Hall)			
	Room 206	Room 208	Room 211	Room 212
10.30-11.15	*Parallel sessions 7 (A)* TERTIARY EDUCATION Perrenet / ter Morsche	(B) TEACHER EDUCATION Pournara	(C) EXAMPLES Ikahata	(D) COMPETENCIES Blomhoej / Kjeldsen
11.15-11.45	Coffee break (Lobby)			
11.45-12.30	*Parallel sessions 8* TERTIARY EDUCATION Han/Guo/Shao/Qian	TEACHER EDUCATION Kuntze	EXAMPLES Kawasaki / Moriya	COMPETENCIES Kleine
12.35-13.20	*Parallel sessions 9* TERTIARY EDUCATION Meyer / Niehaus	TEACHER EDUCATION Bas / Cetinkaya / Erbas	EXAMPLES Braun / Niehaus	EMPIRICAL RESEARCH Nisawa / Moriya
13.20-14.15	Lunch (Mensa)			
14.15-15.00	*Parallel sessions 10* TERTIARY EDUCATION Matsuzaki	TEACHER EDUCATION Almeida	EXAMPLES Kaiser / Schwarz / Buchholtz	EMPIRICAL RESEARCH Ärlebäck
15.05-15.50	*Parallel sessions 11* CURRICULAR ASPECTS Ikeda / Stephens	TEACHER EDUCATION Sen-Zeytun/Cetinkaya/Yildirim/ Erbas	EMPIRICAL RESEARCH Mousoulides / English	EMPIRICAL RESEARCH Ortiz / Santos
15.50-16.15	Coffee break (Lobby)			
16.15-17.00	*Parallel sessions 12* TERTIARY EDUCATION Yang / Tan	TEACHER EDUCATION Biembengut/Santos/Biembengut Faria	EMPIRICAL RESEARCH Lesh	EMPIRICAL RESEARCH Busse
17.05-17.50	*Parallel sessions 13* CURRICULAR ASPECTS Spandaw	TEACHER EDUCATION Veronez	EMPIRICAL RESEARCH Lingefjärd / Meier	EMPIRICAL RESEARCH Grigoras/ Garcia/ Halverscheid

Wednesday 29-7-09

Time				
9.00-10.20	Plenary lecture Neunzert Discussant: Struckmeier Chair: Xie (Lecture Hall)			
	Room 206	Room 208	Room 211	Room 212
10.30-11.15	*Parallel sessions 14 (A)* TECHNOLOGY Greefrath	(B) THEORETICAL REFLECTIONS Abramovich / Leonov	(C) EMPIRICAL RESEARCH Ng	(D) EMPIRICAL RESEARCH Van Dooren / De Bock / Vleugels/ Verschaffel
11.15-11.45	Coffee break (Lobby)			
11.45-12.30	*Parallel sessions 15* TECHNOLOGY Siller	Cancelled: THEORETICAL REFLECTIONS Girnat	EMPIRICAL RESEARCH Schaap / Vos / Goedhart	EMPIRICAL RESEARCH Yu / Chang
12.35-13.20	*Parallel sessions 16* TECHNOLOGY Weitendorf	THEORETICAL REFLECTIONS Shmakov / Slepova	EMPIRICAL RESEARCH Foerster	Cancelled: EMPIRICAL RESEARCH Barbosa / da Silva
13.20-14.15	Lunch (Mensa)			
14.15-15.00	*Parallel sessions 17* PROJECTS Cabassut / Wagner, A.	THEORETICAL REFLECTIONS Vos	CURRICULAR ASPECTS Galbraith / Stillman	EMPIRICAL RESEARCH Sol / Giménez / Rosich
15.15	Bus departure at Völkerkunde Museum			
16.00-18.00	Official Reception by State of Hamburg (City Hall)			
18.15	Bus departure from City Hall			
19.00-22.00	Harbour evening cruise			

Thursday 30-7-09

Time					
9.00-10.20	Plenary lecture Haines Discussant: Maaß Chair: Burkhardt (Lecture Hall)				
	Room 206	Room 208	Room 211	Room 212	Room 207
10.30-11.15	*Parallel sessions 18* (A) TECHNOLOGY Ekol	*(B)* PROJECTS Maaß / Gurlitt	(C) THEORET. REFLECTIONS De Oliveira Lino Franchi/ de Mattos	(D) COGNITIVE ASPECTS Brown / Edwards	(E) CURRICULAR ASPECTS Van der Kooij
11.15-11.45	Poster presentation (Böhm / Bruder) Coffee break (Lobby)				
11.45-12.30	*Parallel sessions 19* TECHNOLOGY Geiger, V.	PROJECTS Garcia / Ruiz-Higueras	THEORET. REFLECTIONS Villa-Ochoa /Jaramillo López	COGNITIVE ASPECTS Carreira / Amado / Lecoq	PROJECTS Garfunkel
12.35-13.20	*Parallel sessions 20* TECHNOLOGY Gomes Neves / Silva / Teodoro	PROJECTS Schmidt	MISCELLANEOUS Haapasalo	Cancelled: COGNITIVE ASPECTS Kramarski / Weiss	*PROJECTS* Salvadori
13.20-14.15	Lunch (Mensa)				
14.15-15.00	*Parallel sessions 21* Cancelled: TECHNOLOGY Ndlovu / Wessels, D. / DeVilliers	PROJECTS Wake	MISCELLANEOUS Heiliö	COGNITIVE ASPECTS Leiss / Schukajlow / Besser	EXAMPLES Hua
15.05-15.50	*Parallel sessions 22* TECHNOLOGY Velten	PROJECTS Vansco / Ambrus	COGNITIVE ASPECTS Carreira / Baioa	COGNITIVE ASPECTS Redmond / Sheehy	EXAMPLES Bracke/ Geiger, A.
15.50-16.15	Coffee break (Lobby)				
16.15-17.00	*Parallel sessions 23* TECHNOLOGY Ibrahim/Hassan/Ogunyemi/Ene	PROJECTS Burkhardt	FREE FOR WORKING GROUPS	Cancelled: COGNITIVE ASPECTS Vom Hofe / Jordan	EXAMPLES Geiger, A. / Bracke
17.05-17.50	Business meeting (Lecture Hall)				
19.00	Conference dinner (Harbour)				

Friday 31-7-09

Time	
9.30-11.00	Plenary lecture Doerr, Lesh Chair: Niss (Lecture Hall)
11.00-11.30	Coffee break (Lobby)
11.30-13.00	Panel discussion Jonei Cerqueira Barbosa Morten Blomhoej George Ekol (Lecture Hall) Peter Galbraith Toshikazu Ikeda Pauline Vos Chair: Gabriele Kaiser
13.00-13.30	Closing ceremony / Farewell (Lecture Hall)
13.30-14.30	Lunch (Mensa)

Monday 27-07-09

08.00 - 09.30	Registration	Lobby
09.30 - 10.00	Opening Ceremony	Lecture Hall
10.00 - 11.20	Plenary lecture: Werner Blum : *Can Modelling be Taught and Learnt? Some Answers from Empirical Research* Discussant: Marcelo de Carvalho Borba, Chair: Gabriele Kaiser	Lecture Hall
11.20 - 11.45	Coffee break	Lobby
11.45 - 12.30	Parallel Sessions 1	
	Session A – TERTIARY EDUCATION Juha Paavola / Eero-Matti Salonen *Mathematical Modelling of Curved Structures*	Room 206
	Session B – TEACHER EDUCATION Andreas Eichler / Boris Girnat *Secondary Teacher's Beliefs on Modelling in Geometry and Stochastics*	Room 208
	Session C – EXAMPLES Mette Andresen *Modelling Chemical Equilibrium in School Mathematics with Technology*	Room 211
	Session D – COMPETENCIES Piera Biccard / Dirk Wessels *Documenting the Development of Modelling Competencies of Grade 7 Mathematics Students*	Room 212
12.35 - 13.20	Parallel Sessions 2	
	Session A – TERTIARY EDUCATION Johan Deprez *Modelling the Evolution of the Belgian Population, Eigenvalues and Eigenvectors*	Room 206
	Session B – TEACHER EDUCATION Helena Wessels *Exposure to Mathematical Modelling of Pre-Service Foundation Phase Teachers*	Room 208
	Session C – EXAMPLES Hans Humenberger *Google's Page-rank-system – a Present-day Application of Mathematics in Classroom*	Room 211
	Session D – COMPETENCIES Luzia Zöttl / Kristina Reiss / Stefan Ufer *Assessing Modelling Competencies Using a Multidimensional IRT-approach*	Room 212
13.20 - 14.15	Lunch	Mensa
14.15 - 15.00	Parallel Sessions 3	
	Session A – TERTIARY EDUCATION Qi Dan / Jinxing Xie *Mathematical Modelling Skills and Creative Thinking Levels: An Experimental Study in a China University*	Room 206
	Session B – TEACHER EDUCATION Gloria Stillman / Jill Brown *Pre-Service Teachers' Affinity to Using Modelling and Real World Tasks in their Teaching in Year 8-10*	Room 208
	Session C – EXAMPLES Lilian Kato / Silas Venâncio *Enlarging the Conceptual Field of Function by Means of Mathematical Modelling: An Investigation using Conceptual Maps*	Room 211

	Session D – COMPETENCIES Matthias Ludwig / Binyan Xu *Blockages and Barriers in Students' Work on Modelling Tasks*	Room 212
15.05 - 15.50	**Parallel Sessions 4**	
	Session A – TERTIARY EDUCATION Ajit Narayanan / Sergiy Klymchuk / Norbert Gruenwald / Gabriele Sauerbier /Tatyana Zverkova *Modelling of Infectious Disease with Biomathematics and Bioinformatics: Implications for Teaching and Research*	Room 206
	Session B – TEACHER EDUCATION Thomas Lingefjärd *Do in-service Teachers Accomplish Mathematical Modeling the Same Way Students Do?*	Room 208
	Session C – EXAMPLES Günter Graumann *Problem Fields of Everyday Life in Mathematics Education*	Room 211
	Session D – COMPETENCIES Hans-Wolfgang Henn *Why Cats Happen to Fall From the Sky Sometimes or on Good and Bad Models*	Room 212
15.50 - 16.15	Coffee break	Lobby
16.15 - 17.00	**Parallel Sessions 5**	
	Session A – TERTIARY EDUCATION Burkhard Alpers *The Mathematical Expertise of Mechanical Engineers – Taking and Processing Measurements*	Room 206
	Session B – TEACHER EDUCATION Ralf Wagner / Engelbert Niehaus *Mathematical Modelling of Environmental-scientific Problems concerning Risk Analysis using Geographical-Information-Systems and Self-made Web Applications*	Room 208
	Session C – EXAMPLES Usha Kotelawala *Stochastic Case Problems for the Secondary Classroom*	Room 211
	Session D – COMPETENCIES Peter Frejd / Jonas Bergman Ärlebäck *An Investigation of Swedish Upper Secondary Students' Mathematical Modelling Competencies*	Room 212
17.05 - 17.50	**Parallel Sessions 6**	
	Session A – TERTIARY EDUCATION Meng-da Wu / Dan Wang *The Analysis of Two Modeling Cases*	Room 206
	Session B – TEACHER EDUCATION Zahra P Shirazian / Pamela Mulhal / Anthony Jones *Physics Teachers' Mathematical Modelling in Mechanics Tasks*	Room 208
	Session C – EXAMPLES Matthias Brandl *Modelling Tasks at the Teacher-online Portal "Program for gifted"*	Room 211
	Session D – COMPETENCIES Joachim Engel, Sebastian Kuntze *From Data to Function: Connecting Modeling Competencies and Statistical Literacy*	Room 212
18.00 - 19.30	Welcome reception	Café / Lobby

Tuesday 28-07-09

09.00 - 10.20	Plenary lecture Gloria Stillman *Applying Metacognitive Knowledge and Strategies in Applications and Modelling Tasks at Secondary School* Discussant: Rita Borromeo Ferri , Chair: Toshikazu Ikeda	Lecture Hall
10.30 - 11.15	Parallel Sessions 7	
	Session A – TERTIARY EDUCATION Jacob Perrenet / Hennie ter Morsche *Modelling and the Academic Characteristic of Applied Mathematics*	Room 206
	Session B – TEACHER EDUCATION Craig Pournara *Pre-service Teachers Modelling Annuity-based Scenarios*	Room 208
	Session C – EXAMPLES Sunao Ikahata *A Study on a Teaching Material Focused on Selecting Appropriate Data - Is Blue Really Advantageous in Judo? -*	Room 211
	Session D – COMPETENCIES Morton Blomhoej / Tinne Hoff Kjeldsen *Analysing the Function of Mathematical Modelling in Science as a Basis for Developing Modelling Competency in Science Education*	Room 212
11.15 -11.45	Coffee break	Lobby
11.45 - 12.30	Parallel Sessions 8	
	Session A – TERTIARY EDUCATION Zhonggeng Han/Xiaoli Guo/Guangji Shao/Yaoshan Qian*: Mathematical Modeling and Practice Teaching with the Relevant Mathematical Courses*	Room 206
	Session B – TEACHER EDUCATION Sebastian Kuntze *In-service and Prospective Teachers' Views about Modelling Tasks in the Mathematics Classroom – Results of a Quantitative Empirical Study*	Room 208
	Session C – EXAMPLES Tetsushi Kawasaki / Seiji Moriya *The Development of Teaching Materials Using "Kepler's Law" for Senior High School Students Who Want to become Scientists – with Consciousness of the Interrelation between Math and Science*	Room 211
	Session D – COMPETENCIES Michael Kleine *The Measurement of Modelling Competencies in Students' Assessment Studies*	Room 212
12.35 - 13.20	Parallel Sessions 9	
	Session A – TERTIARY EDUCATION Marco Meyer / Engelbert Niehaus *Spatial Logic for Solving Geographical Problems*	Room 206
	Session B – TEACHER EDUCATION Sinem Bas / Bulent Cetinkaya / Ayhan Kursat Erbas *Pre-service Mathematics Teachers' Development of Mathematical Models: Motion with Simple Pendulum*	Room 208
	Session C – EXAMPLES Thorsten Braun / Engelbert Niehaus *Modelling of Various Distribution Problems with the Help of Stochastic Networks*	Room 211
	Session D – EMPIRICAL RESEARCH Yoshiki Nisawa / Seiji Moriya *Research into Teaching Multi-variable Functions – Modelling, Partial Differentiation and Double Integration*	Room 212

13.20 - 14.15	Lunch	Mensa
14.15 - 15.00	**Parallel Sessions 10**	
	Session A – TERTIARY EDUCATION Akio Matsuzaki *Comparing Modelling by Graduate School Students and by Electronics Expert in Solving Electronic Problems*	Room 206
	Session B – TEACHER EDUCATION Lourdes Maria Werle Almeida *Mathematical Modelling, Reflexive Thought And Teacher's Education: An Articulation*	Room 208
	Session C – EXAMPLES Gabriele Kaiser / Björn Schwarz / Nils Buchholtz *Authentical Modelling Problems in Mathematics Education – Examples and Experiences from a Modelling Week*	Room 211
	Session D – EMPIRICAL RESEARCH Jonas Ärlebäck *Using CHAT to Analyse the Collaborative Developing and Designing Process of a Small Mathematical Modelling Project in Upper Secondary School*	Room 212
15.05 - 15.50	**Parallel Sessions 11**	
	Session A – CURRICULAR ASPECTS Toshikazu Ikeda / Max Stephens *A Historical Perspective on How to Make Connections between Modelling and Constructing Mathematical Knowledge*	Room 206
	Session B – TEACHER EDUCATION Aysel Sen-Zeytun / Bulent Cetinkaya / Ufuk Yildirim / Ayhan Kursat Erbas *Pre-service Physics Teacher's Difficulties in Constructing Mathematical Models of Simple Harmonic Motion*	Room 208
	Session C – EMPIRICAL RESEARCH Nicholas Mousoulides / Lyn English *Integrating Engineering Model Eliciting Activities in Elementary School Mathematics Curricula*	Room 211
	Session D – EMPIRICAL RESEARCH José Ortiz / Aldora Santos *Mathematical Modelling in Secondary Education. A Case Study*	Room 212
15.50 - 16.15	Coffee break	Lobby
16.15 - 17.00	**Parallel Sessions 12**	
	Session A – TERTIARY EDUCATION *Qifan Yang / Zhiyi Tan* The instruction and Contest of Mathematical Modeling: An effective approach to cultivate talents with creativity	Room 206
	Session B – TEACHER EDUCATION Maria Salett Biembengut, Selma Santos, Thaís Mariane Biembengut Faria *Mathematical Modeling Distance Course for Teachers*	Room 208
	Session C – EMPIRICAL RESEARCH Richard Lesh *Design Research in Mathematics Education – Workshop for early career researchers*	Room 211
	Session D – EMPIRICAL RESEARCH Andreas Busse *Upper Secondary Students' Handling of real World Contexts*	Room 212

17.05 - 17-50	**Parallel Sessions 13**	
	Session A – CURRICULAR ASPECTS Jerome Spandaw *Modelling and Design in Science Education*	Room 206
	Session B - TEACHER EDUCATION Michele Veronez *Implications of mathematical modelling in pre-service teacher education*	Room 208
	Session C – EMPIRICAL RESEARCH Thomas Lingefjärd / Stefanie Meier *Sunrise in Sweden and Germany*	Room 211
	Session D – EMPIRICAL RESEARCH Roxana Grigoras / Stefan Halverscheid / Fco. Javier García *Examining Mathematising Activities in Modelling Tasks with Hidden Mathematical Character*	Room 212

Wednesday 29-07-09

09.00 - 10.15	**Plenary lecture** Helmut Neunzert *Mathematical Modelling and a New Role for Mathematics as a Key Technology* Discussant: Jens Struckmeier, Chair: Jinxing Xie	
10.30 - 11.15	**Parallel Sessions 14**	
	Session A – TECHNOLOGY Gilbert Greefrath *Examination Tasks - with Modelling Problems and Use of Technology?*	Room 206
	Session B – THEORETICAL REFLECTIONS Sergei Abramovich / Gennady A Leonov *From Modeling in Mathematics Education to the Discovery of New Mathematical Knowledge*	Room 208
	Session C - EMPIRICAL RESEARCH Dawn Kit E Ng *Mathematical Application during an Interdisciplinary Project*	Room 211
	Session D - EMPIRICAL RESEARCH Wim Van Dooren / Dirk De Bock / Kim Vleugels / Lieven Verschaffel *Word Problem Classification: A Promising Modelling Task at the Elementary Level*	Room 212
11.15 - 11.45	Coffee break	Lobby
11.45 - 12.30	**Parallel Sessions 15**	
	Session A – TECHNOLOGY Hans-Stefan Siller *The Role of Real-life Mathematics in Education – Degradation of Alcohol*	Room 206
	Cancelled: Session B – THEORETICAL REFLECTIONS Boris Girnat *Geometry: Paradox of an Applied Science A Priori*	Room 208
	Session C - EMPIRICAL RESEARCH Sanne Schaap / Pauline Vos / M. J. Goedhart *Students Overcoming Blockages while Building a Mathematical Model; exploring a framework*	Room 211
	Session D - EMPIRICAL RESEARCH Shih-Yi Yu / Ching-Kuch Chang *What Did Taiwan Mathematics Teachers Think of Model-Eliciting Activities And Modeling?*	Room 212

12.35 - 13.20	**Parallel Sessions 16**	
	Session A – TECHNOLOGY Jens Weitendorf *The Role of Technology in the Modelling Circle*	Room 206
	Session B – THEORETICAL REFLECTIONS Pavel Shmakov / Natalia Slepova *Two-stage Modeling: Entertaining Intermediate Representation*	Room 208
	Session C - EMPIRICAL RESEARCH Frank Förster *Secondary Teachers' Beliefs on Teaching Applications*	Room 211
	Session D - EMPIRICAL RESEARCH Jonei Cerqueira Barbosa / Jonson Ney Dias da Silva *Technological Discussions in Mathematical Modelling*	Room 212
13.20 - 14.15	Lunch	Mensa
14.15 - 15.00	**Parallel Sessions 17**	
	Session A – PROJECTS Richard Cabassut / Anke Wagner *Roles of Knowledge in the Teaching of Modelling at Primary Schools Through French-German Comparison*	Room 206
	Session B – THEORETICAL REFLECTIONS Pauline Vos *What is 'Authentic' in the Teaching and Learning of Mathematical Modelling?*	Room 208
	Session C – CURRICULAR ASPECTS Peter Galbraith / Gloria Stillman *Evolution of Applications in Modelling in the Senior Secondary Curriculum in Queensland*	Room 20
	Session D – EMPIRICAL RESEARCH Manuel Sol / Joachim Giménez / Nuria Rosich *Modelling Routes in 12-16 Years Old Studies*	Room 21
15.15	Departure to official reception at Town Hall. Buses start from the Völkerkunde Museum, Rothenbaumchaussee	
16.00 - 18.00	Official Reception by State of Hamburg (Town Hall)	
18.15	Departure to Harbour from Town Hall with buses	
19.00 - 22.00	Harbour Evening Cruise (*Landungsbrücken*)	

Thursday 30-07-09

09.00 -10.15	Plenary lecture Chris Haines *Drivers for Mathematical Modelling: Pragmatism in Practice. In Touch with the Real World!* Discussant: Katja Maaß, Chair: Hugh Burkhardt	Lecture Hall
10.30 - 11.15	Parallel Sessions 18	
	Session A – EMPIRICAL RESEARCH George Ekol *Understanding and Promoting Mathematical Modeling Competencies from Applied Standpoint*	Room 206
	Session B – PROJECTS Katja Maaß / Johannes Gurlitt *Professional Development about Modelling within a European Context - Results of a European Project*	Room 208
	Session C – THEORETICAL REFLECTIONS Regina Helena de Oliveira Lino Franchi and Adriana Cesar de Mattos *Modelling in Mathematics Education: some specific characteristics*	Room 211
	Session D – COGNITIVE ASPECTS Jill Brown / Ian Edwards *Modelling Tasks: Not just Learning Tasks but Deepening Understanding of Mathematics and its Communication*	Room 212
	Session E – PROJECTS Henk van der Kooij *Connecting Math and Science/Technology Education, Opportunities and Pitfalls*	Room 207
11.15 - 11.45	Coffee break	Lobby
11.15 - 11.45	Poster presentation (Böhm / Bruder)	
11.45 - 12.30	Parallel Sessions 19	
	Session A – TECHNOLOGY Vince Geiger *Factors Affecting Teachers' Adoption of Innovative Practices with Technology and Mathematical Modeling*	Room 206
	Session B – PROJECTS Javier Garcia / Luisa Ruiz-Higueras *Modifying Teachers' Practices: The Case of an European Training Course on Modelling and Applications*	Room 208
	Session C – THEORETICAL REFLECTIONS Jhony Alexander Villa–Ochoa, Carlos Mario Jaramillo López *Sense of reality through mathematical modeling*	Room 211
	Session D – COGNITIVE ASPECTS Susana Carreira / Nélia Amado / Filipa Lecoq *Mathematical Modelling of Daily Life in Adult Education – Focusing on the Notion of Knowledge*	Room 212
	Session E – PROJECTS Sol Garfunkel *Math to Work, Math is Everywhere, Math is More*	Room 207
12.35 - 13.20	Parallel Sessions 20	
	Session A – TECHNOLOGY Rui Gomes Neves / Jorge Carvalho Silva / Vitor Duarte Teodoro *Improving Learning in Science and Mathematics with Exploratory and Interactive Computational Modelling*	Room 206

	Session B – PROJECTS Barbara Schmidt *Modelling in the Classroom – Motives and Obstacles from the Teacher's Perspective*	Room 208
	Session C – MISCELLANEOUS Lenni Haapasalo *Revitalizing Sustainable Heuristics through Geometric Modelling*	Room 211
	Session D – FREE FOR WORKING GROUPS	Room 212
	Session E – PROJECTS Anna Salvadori *Mathematics and Real Life: a New Approach to Teaching and Learning Mathematics*	Room 207
13.20 - 14.15	Lunch	Mensa
14.15 - 15.00	**Parallel Sessions 21**	
	Cancelled: Session A – TECHNOLOGY Mdutshekelwa Ndlovu / Dirk Wessels / Michael DeVilliers *Modeling with Sketchpad to Enrich Students' Concept Image of the Derivative*	Room 206
	Session B – PROJECTS Geoff Wake *Understanding Professional Development FOR Modelling as a Collateral Transition*	Room 208
	Session C – MISCELLANEOUS Matti Heiliö *Modelling and the Educational Challenge in Industrial Mathematics*	Room 211
	Session D – COGNITIVE ASPECTS Dominik Leiss / Stanislaw Schukajlow / Michael Besser *Is There Only One Modelling Competency? The Question of Situated Cognition when Solving Real World Problems*	Room 212
	Session E – FREE FOR WORKING GROUPS	Room 207
15.05 - 15.50	**Parallel Sessions 22**	
	Session A – TECHNOLOGY Kai Velten *Mathematical Modeling Using Open-Source Software*	Room 206
	Session B – PROJECTS Ödön Vansco / Gabriella Ambrus *Teaching Mathematical Modeling in Hungarian Schools Based on Some National Traditions*	Room 208
	Session C – COGNITIVE ASPECTS Susana Carreira / Ana Margarida Baioa *Students' Modelling Cycles in the Context of Object Manipulation and Experimentalist Mathematics*	Room 211
	Session D – COGNITIVE ASPECTS Trevor Redmond / Joanne Sheehy *Using Mathematical Modelling to Allow Students to Make their Thinking Visible*	Room 212
	Session E – EXAMPLES Martin Bracke / Andreas Geiger *Real-World Modelling in Regular Lessons: An Experiment*	Room 207
15.05 - 15.50	Coffee break	Lobby

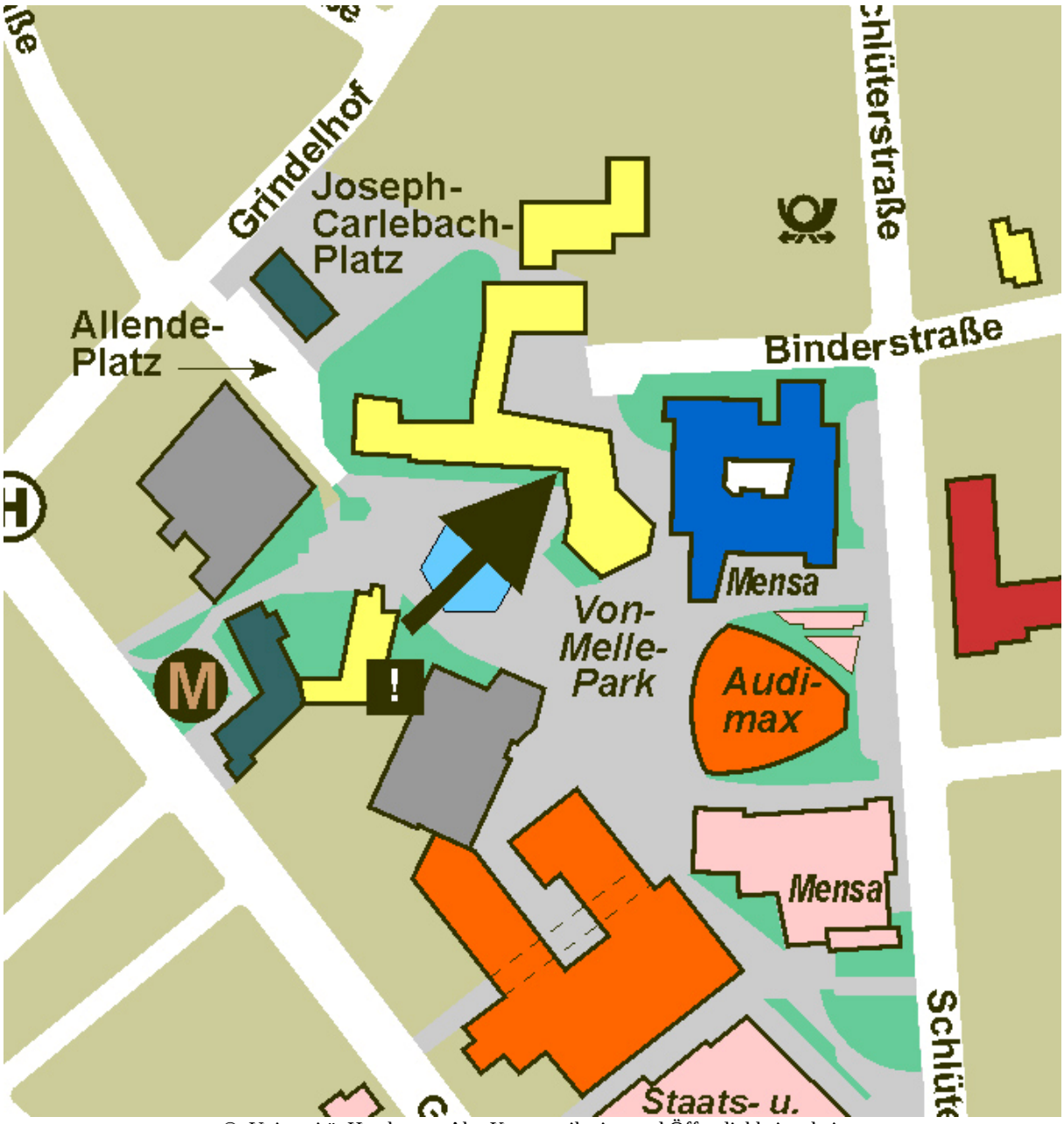
16.15 - 17.00	Parallel Sessions 23	
	Session A – TECHNOLOGY Mohammed Olanrewaju Ibrahim /Taiwo Hassan / Yomi Ogunyemi / Akor Franca Ene *The use of Mathematical Modelling in Understanding HIV/AIDS: A Case study of Sokoto State of Nigeria*	Room 206
	Session B – PROJECTS Hugh Burkhardt *An Integrated Approach to Introducing Modelling*	Room 208
	Session C – FREE FOR WORKING GROUP	Room 211
	Cancelled: Session D– COGNITIVE ASPECTS Rudolf vom Hofe / Alexander Jordan *The Effect of Mental Models ("Grundvorstellungen") for the Development of Mathematical Modelling Competencies - Results of the Longitudinal Study PALMA*	Room 212
	Session E – EXAMPLES Andreas Geiger / Martin Bracke *Real-World Modelling in Regular Lessons: Results and Conclusions*	Room 207
17.05 - 17.50	Business meeting	Lecture Hall
19.00 - ...	Conference dinner (on board of "Rickmer-Rickmers" at the Harbour)	

Friday 31-07-09

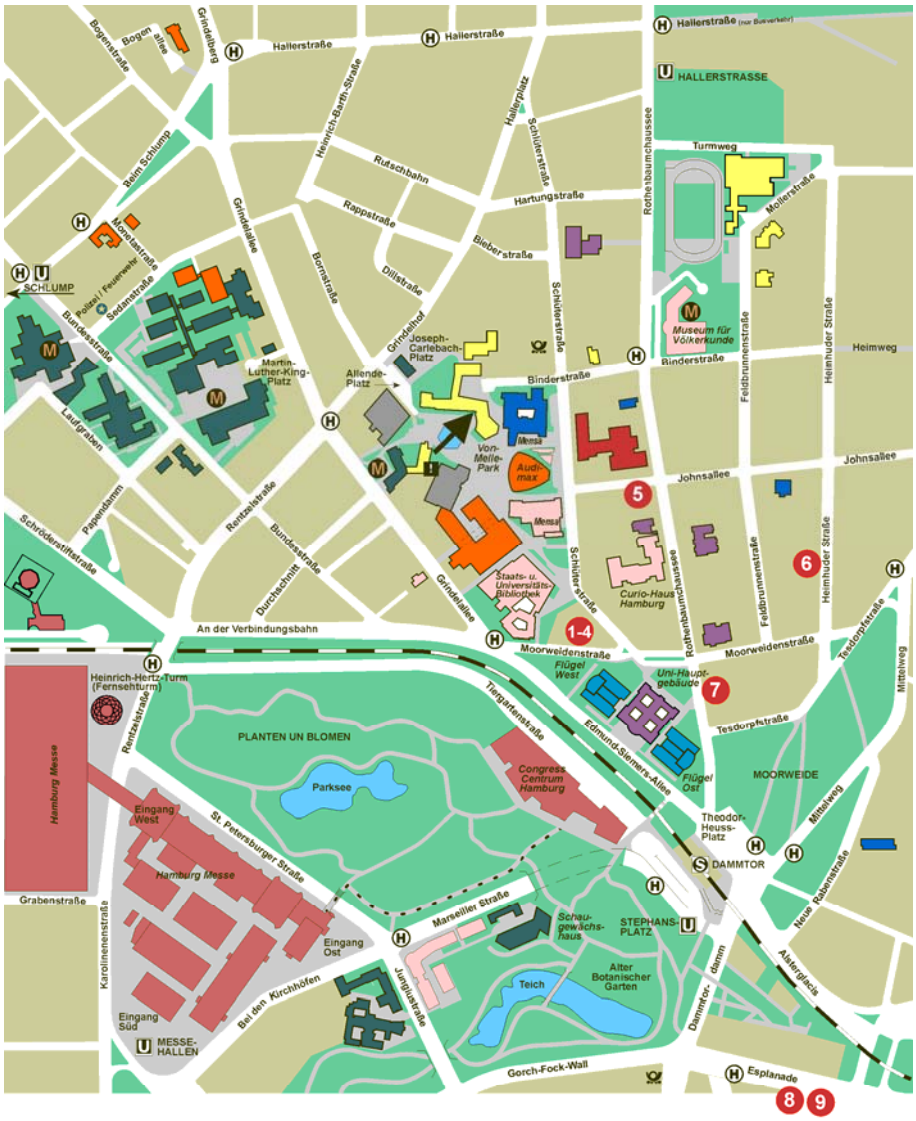
09.30 - 11.00	Plenary lecture Helen M. Doerr, Richard Lesh *Models and Modeling: Perspectives on Teaching and Learning Mathematics for the 21st Century* Chair: Mogens Niss	Lecture Hall
11.00 - 11.30	Coffee break	Lobby
11.30 –13.00	Panel discussion *Modelling perspectives around the world – State-of-the-art* Panelists: Marcelo de Carvalho Borba Morten Blomhoej George Ekol Peter Galbraith Toshikazu Ikeda Pauline Vos Chair: Gabriele Kaiser	Lecture Hall
13.00 - 13.30	Closing ceremony / Farewell	Lecture Hall
13.30 - 14.30	Lunch	Mensa

The Conference Venue

Department of Education: Von-Melle-Park 8, 20146 Hamburg

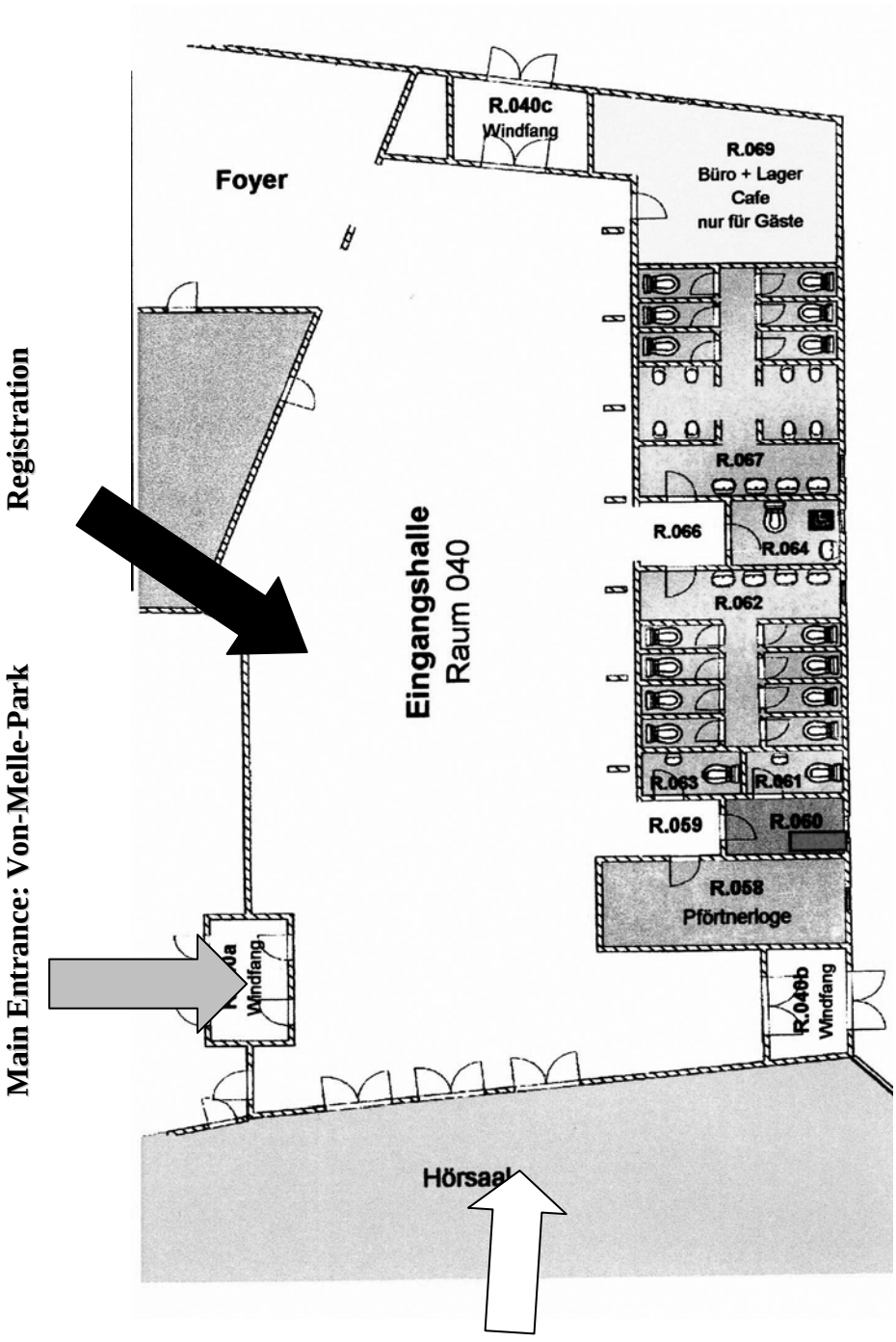


Hamburg University Main Campus
Conference Venue: → Department of Education:
Von-Melle-Park 8, 20146 Hamburg



Conference Venue
Von-Melle-Park 8 (VMP8) - Lobby

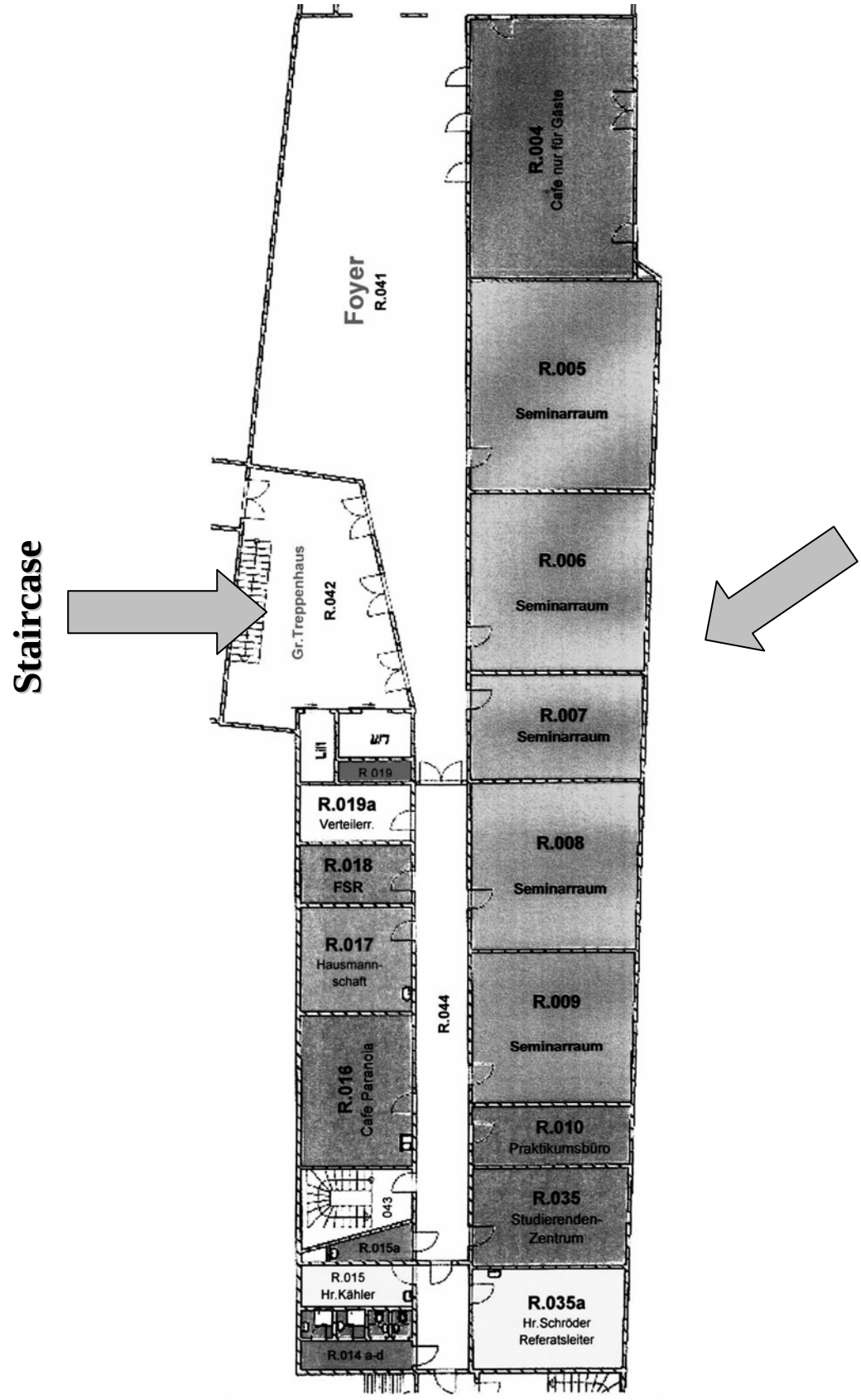
Side entrance: Binderstraße



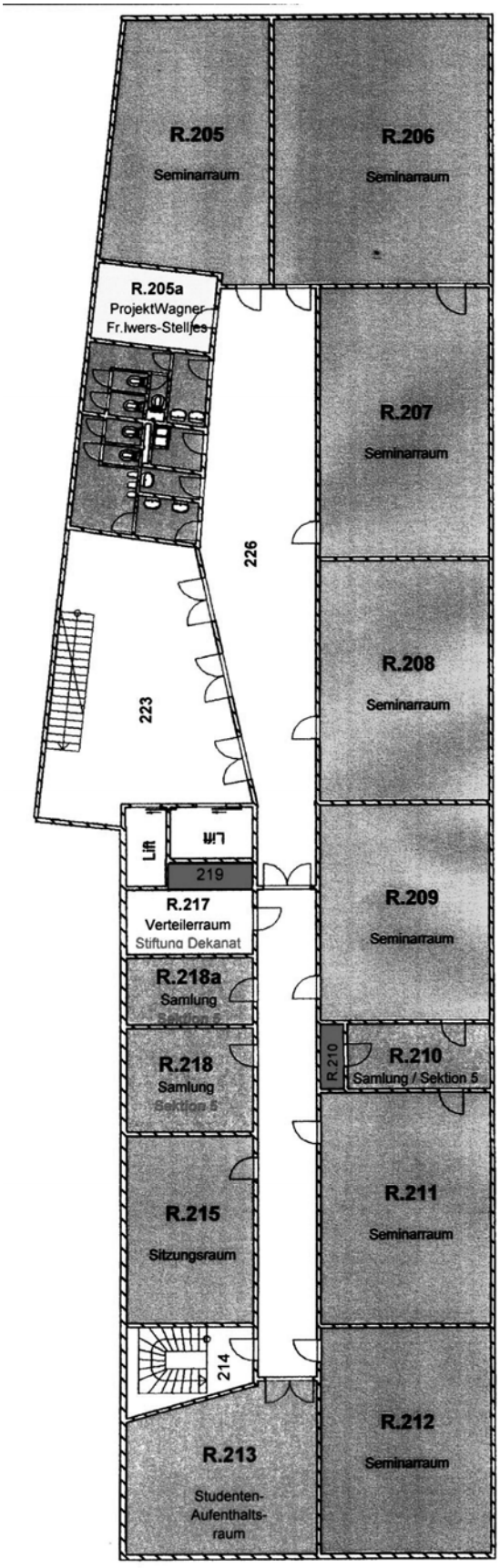
Lecture Hall

Ground Floor

Rooms 06 : Conference Office / Room 07: Cloakroom



Session Rooms: 3rd Floor
Room 206, 207, 208, 211, 212



LAN / W-LAN, Internet Access:

- **W-LAN for your own notebook or internet connection with public computers are available. There is a computer room at the ground floor, close to the library (room 024).**
- **For internet access please ask at the registration desk for an account and password. In case of problems, assistance will be provided.**

-

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