

Jahrestagung der Deutschen Mathematiker-Vereinigung 2015



Hamburg
21.-25.9.2015



*Annual Meeting 2015 of the
Deutsche Mathematiker-Vereinigung
September 21 – 25, in Hamburg, Germany*

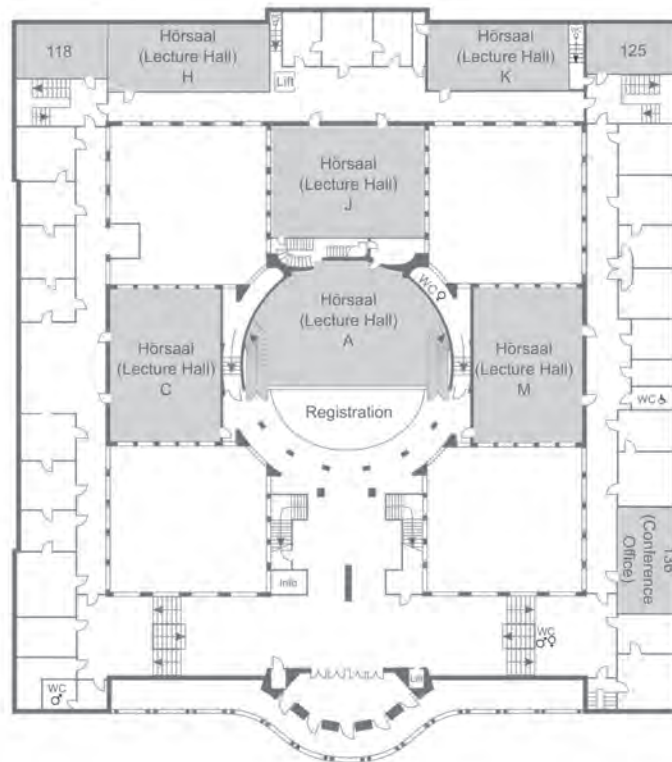


Detaillierter Zeitplan
Detailed Schedule

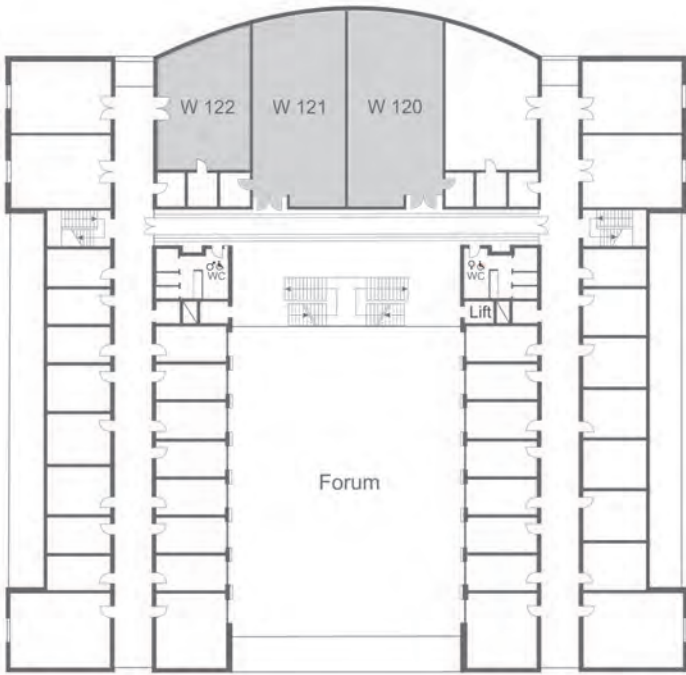
Liste der Sektionen / List of Sections:

Algebra & Number Theory	Tuesday	15:15–16:55	W120
	Wednesday	15:15–17:15	W120
	Thursday	15:15–17:15	W120
Differential Geometry, Global Analysis, & Applications	Tuesday	15:15–17:15	Hörsaal M
	Wednesday	15:15–17:15	Hörsaal M & Hörsaal K
	Thursday	15:15–17:15	Hörsaal M & Hörsaal K
Differential Equations & Applications	Tuesday	15:15–17:15	Hörsaal C
	Wednesday	15:15–17:15	Hörsaal C & Hörsaal H
	Thursday	15:15–16:55	Hörsaal C & Hörsaal H
Discrete Mathematics	Wednesday	15:15–17:15	W122
	Thursday	15:15–16:55	W122
Functional Analysis, Real & Complex Analysis	Tuesday	15:15–17:15	W220
	Wednesday	15:15–17:15	W220
Geometry & Topology	Tuesday	15:15–17:15	W222
	Wednesday	15:15–17:15	W222
	Thursday	15:15–17:15	W222
History of Mathematics & Mathematics Education	Tuesday	15:15–17:15	Hörsaal J & Hörsaal H
	Wednesday	15:15–17:15	Hörsaal J
	Thursday	15:15–16:55	Hörsaal J
Logic & Theoretical Computer Science	Tuesday	15:15–17:15	W121
	Wednesday	15:15–17:15	W121
	Thursday	15:15–17:15	W121
Numerical Analysis & Scientific Computing	Tuesday	15:15–17:15	W221
	Wednesday	15:15–17:15	W221
	Thursday	15:15–16:35	W221
Stochastics, Statistics, & Financial Mathematics	Tuesday	15:15–17:15	O222
	Wednesday	15:15–17:15	O222

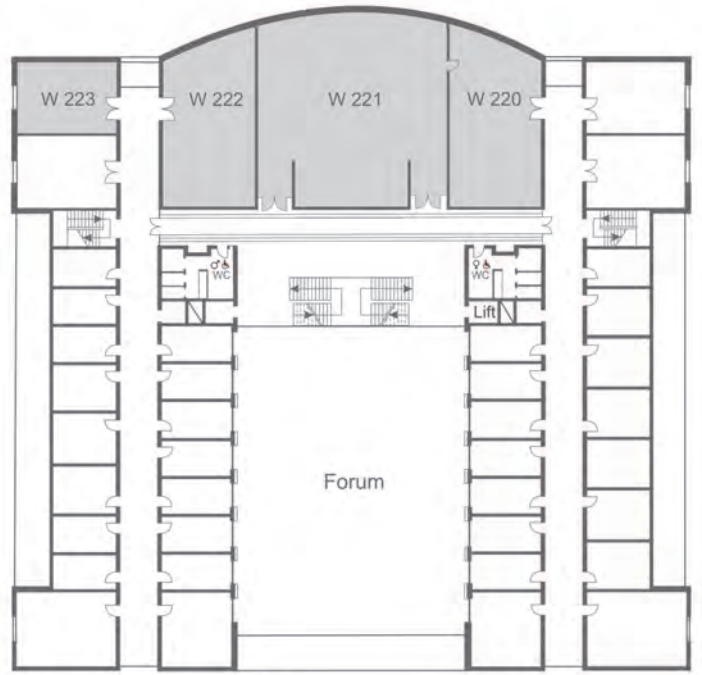
Grundrisse / Floor Plans :



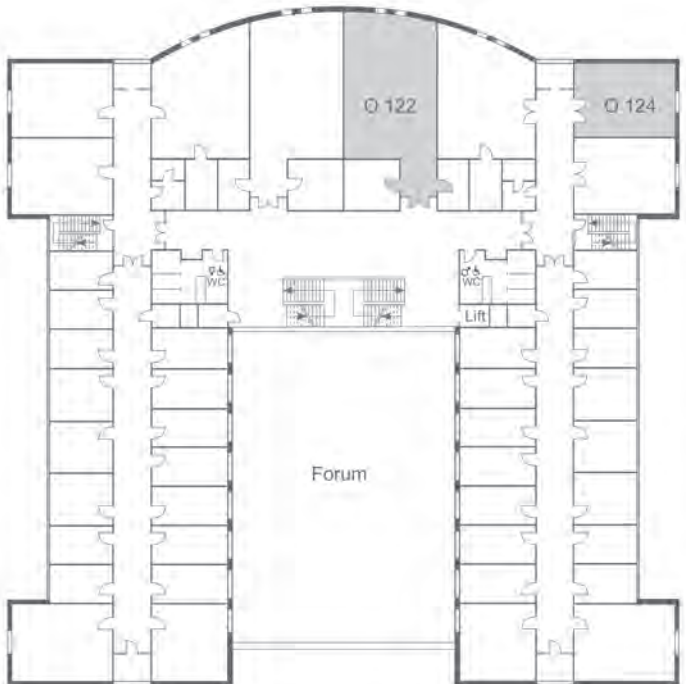
ESA1: Erdgeschoß / Ground Floor



ESA1W: 1. Obergeschoß / First Floor



ESA1W: 2. Obergeschoß / Second Floor



ESA1O: 1. Obergeschoß / First Floor



ESA1O: 2. Obergeschoß / Second Floor

Liste der Minisymposien / List of Mini-Symposia:

MS#1	Tuesday	10:30–12:30	Hörsaal A	MS#21	Tuesday	14:00–15:00	Hörsaal H
	Tuesday	14:00–15:00	Hörsaal A		Wednesday	10:30–12:30	Hörsaal H
MS#2	Tuesday	10:30–12:20	W223		Wednesday	14:00–15:00	Hörsaal A
	Tuesday	14:00–15:00	W223	MS#22	Wednesday	10:30–12:30	O124
	Wednesday	10:30–12:30	W223		Wednesday	14:00–15:00	O124
	Wednesday	14:00–15:00	W223		Thursday	10:30–12:30	O124
MS#3	Thursday	10:30–12:30	Hörsaal C		Thursday	17:45–18:45	O124
	Thursday	17:45–18:45	Hörsaal C	MS#23	Thursday	10:30–12:30	W222
	Friday	10:30–12:30	Hörsaal C		Thursday	17:45–18:35	W222
	Friday	14:00–15:00	Hörsaal C		Friday	10:30–12:30	W222
MS#4	Tuesday	10:30–12:30	Hörsaal C	MS#24	Thursday	10:30–12:00	W120
	Tuesday	14:00–15:00	Hörsaal C		Thursday	17:45–18:45	W120
	Wednesday	10:30–12:30	Hörsaal C		Friday	10:30–12:00	W120
	Wednesday	14:00–15:00	Hörsaal C		Friday	14:00–14:30	W120
MS#5	Thursday	10:30–12:30	W121	MS#25	Thursday	10:30–12:30	Hörsaal J
	Thursday	17:45–18:45	W121		Thursday	17:45–18:45	Hörsaal J
	Friday	10:30–12:30	W121		Friday	10:30–12:30	Hörsaal J
	Friday	14:00–15:00	W121		Friday	14:00–15:00	Hörsaal J
MS#6	Wednesday	10:30–12:30	Hörsaal K	MS#26	Wednesday	10:30–12:30	O233
	Thursday	10:30–12:30	W223		Wednesday	14:00–15:00	O233
MS#7	Friday	10:30–12:25	O232		Thursday	10:30–12:30	O233
	Friday	14:00–15:00	O232		Thursday	17:45–18:45	O233
MS#8	Friday	10:30–12:30	Hörsaal H	MS#27	Tuesday	10:30–12:30	W121
	Friday	14:00–15:00	Hörsaal H		Tuesday	14:00–15:00	W121
MS#9	Thursday	17:45–18:45	O222		Wednesday	10:30–12:30	W121
	Friday	10:30–12:30	O222		Wednesday	14:00–14:30	W121
	Friday	14:00–15:00	O222	MS#28	Thursday	10:30–12:30	O232
MS#10	Wednesday	14:00–15:00	Hörsaal H		Thursday	17:45–18:45	O232
	Thursday	10:30–12:30	Hörsaal H	MS#29	Thursday	17:45–18:45	W220
	Thursday	17:45–18:45	Hörsaal H		Friday	10:30–12:30	W220
MS#11	Friday	10:30–12:30	W223		Friday	14:00–15:00	W220
	Friday	14:00–15:00	W223	MS#30	Friday	10:30–12:00	O122
MS#12	Wednesday	10:30–12:30	O222		Friday	14:00–15:00	O122
	Thursday	10:30–12:00	O222	MS#31	Wednesday	10:30–12:20	Hörsaal A
MS#13	Tuesday	14:00–15:00	W220		Thursday	10:30–12:20	Hörsaal A
MS#14	Thursday	10:30–12:30	W221	MS#32	Tuesday	10:30–12:30	W122
	Thursday	17:45–18:45	W221		Tuesday	14:00–15:00	W122
	Friday	10:30–12:30	W221		Wednesday	10:30–12:00	W122
	Friday	14:00–15:00	W221		Wednesday	14:00–15:00	W122
MS#15	Tuesday	10:30–12:30	W221	MS#33	Thursday	17:45–18:45	Hörsaal A
	Tuesday	14:00–15:00	W221		Friday	10:30–12:30	Hörsaal A
	Wednesday	10:30–12:30	W221		Friday	14:00–15:00	Hörsaal A
	Wednesday	14:00–15:00	W221	MS#34	Wednesday	10:30–12:30	O232
MS#16	Thursday	10:30–12:30	Hörsaal M		Wednesday	14:00–15:00	O232
	Thursday	17:45–18:45	Hörsaal M	MS#35	Tuesday	10:30–12:30	W120
	Friday	10:30–12:30	Hörsaal M		Tuesday	14:00–15:00	W120
	Friday	14:00–15:00	Hörsaal M		Wednesday	10:30–12:30	W120
MS#17	Tuesday	10:30–12:30	Hörsaal J		Wednesday	14:00–15:00	W120
	Tuesday	14:00–15:00	Hörsaal J	MS#36	Tuesday	10:30–12:00	W222
	Wednesday	10:30–12:30	Hörsaal J		Tuesday	14:00–14:45	W222
	Wednesday	14:00–15:00	Hörsaal J		Wednesday	10:30–12:00	W222
MS#18	Tuesday	10:30–12:30	Hörsaal K		Wednesday	14:00–14:30	W222
	Tuesday	14:00–15:00	Hörsaal K	MS#37	Tuesday	10:30–12:30	W220
	Wednesday	14:00–15:00	Hörsaal K		Wednesday	10:30–12:30	W220
MS#19	Thursday	10:30–12:30	Hörsaal K		Thursday	10:30–11:50	W220
	Thursday	17:45–18:45	Hörsaal K	MS#38	Thursday	10:30–12:30	W122
	Friday	10:30–12:30	Hörsaal K		Thursday	17:45–18:45	W122
MS#20	Tuesday	10:30–12:30	Hörsaal M		Friday	10:30–12:30	W122
	Tuesday	14:00–15:00	Hörsaal M	MS#39	Friday	14:00–15:00	W122
	Wednesday	10:30–12:30	Hörsaal M		Tuesday	10:30–12:20	Hörsaal H
	Wednesday	14:00–15:00	Hörsaal M				

Öffnungszeiten Registration / Opening Hours Registration Desk:

Sunday	09:00–18:00
Monday	08:30–19:00
Tuesday	08:30–19:00
Thursday	08:30–19:00
Friday	08:30–18:00



www.mediaserver.hamburg.de / Christian Spahrbier

Sunday, 20 September 2015: Hauptgebäude / Main Building

Hörsaal C

Satellite Workshop: Recent Trends in Stochastic Analysis and Related Topics

10:00–10:35 MÖRTERS The contact process on evolving scale-free networks

10:35–11:10 KNOWLES
Eigenvalue distribution of random regular graphs

11:10–11:45 JAHNEL
Classes of nonergodic interacting particle systems with unique invariant measure

11:45–12:20 EICHELSBACHER
Malliavin-Stein method for Variance-Gamma approximation on Wiener space

12:20 - 14:20 Lunch Break

Satellite Workshop: Recent Trends in Stochastic Analysis and Related Topics

14:20–14:55 DEPPERSCHMIDT
Random walks in dynamic random environments and ancestry under local population regulation

14:55–15:30 BOVIER
Scaling limits in adaptive dynamics

15:30–16:05 DÖRING
Connection times in large ad-hoc networks

16:05–16:40 Coffee Break

Satellite Workshop: Recent Trends in Stochastic Analysis and Related Topics

16:40–17:15 AURZADA
Persistence Probabilities

17:15–17:50 WACHTEL
Invariance principles for random walks in cones

Hörsaal J

Satellite Workshop: Generalized Baire Space

11:00–12:00 KULIKOV
The language $M^{\kappa+\kappa}$ and Borel sets

12:15 - 14:00 Lunch Break

Satellite Workshop: Generalized Baire Space

14:00–14:45 SZIRÁKI
A dichotomy for Σ_2^0 relations and elementary embeddability of uncountable cardinals

15:00–15:45 MONTOYA
On Cichon's diagram for uncountables

15:45–16:15 Coffee Break

Satellite Workshop: Generalized Baire Space

16:15–17:00 SCHLICHT
TBA

17:15–18:00 LÜCKE
Lightface Δ_1^1 subsets of $\omega_1^{\omega_1}$

Hörsaal M

Satellite Workshop: Trends in Proof Theory

09:15–10:00 SCHWICHTENBERG
Logic for Real Number Computation

10:00–10:45 PETERSEN
On Levels of Induction in a Contraction Free Logic with Unrestricted Abstraction

10:45–11:00 Coffee Break

Satellite Workshop: Trends in Proof Theory

11:00–11:45 NEGRI
Logic for Real Number Computation

11:45–12:30 CROSILLA
Philosophy of Mathematics and Proof Theory: Some Thoughts Calculus

12:30–14:30 Lunch Break

Satellite Workshop: Trends in Proof Theory

14:30–15:15 SIEBEL
Knowing-That and Knowing-Why in Plato, Aristotle and Bolzano

15:15–16:00 SUNDHOLM
Assumption versus Lemma

16:00–16:30 Coffee Break

Satellite Workshop: Trends in Proof Theory

16:30–17:15 PECKHAUS
The Notion of Proof in the Early Algebra of Logic

17:15–18:00 FØLLESDAL
The Role of Mathematics and Science in Bildung

Monday, 21 September 2015: Hauptgebäude / Main Building

Hörsaal A

Hörsaal C

Hörsaal J

Hörsaal M

Satellite Workshop: Recent Trends in Stochastic Analysis and Related Topics
9:00-9:35 HEYDENREICH
 Spontaneous symmetry breaking and the formation of crystals
9:35-10:10 BETZ
 Metastable dynamics of non-reversible perturbed Markov chains
10:10-10:45 RIEDEL
 Invariant measures for rough differential equations

10:45–11:15 Coffee Break

Satellite Workshop: Recent Trends in Stochastic Analysis and Related Topics
11:15-11:50 REISS
 Spontaneous symmetry breaking and the formation of crystals
11:50–12:25 WINTER
 Evolving phylogenies of trait-dependent branching with mutation and competition

12:25–14:30 Lunch Break

Satellite Workshop: Recent Trends in Stochastic Analysis and Related Topics
14:30-15:05 SOUSI
 Mixing, hitting and intersection times for Markov chains
15:05-15:40 MILLER
 Liouville quantum gravity and the Brownian map

Satellite Workshop: Generalized Baire Space
10:00-11:00 MOTTO ROS
 On some classification problems concerning uncountable structures and non-separable spaces

11:10–11:30 Coffee Break

Satellite Workshop: Generalized Baire Space
11:30-12:30 BROOKE-TAYLOR
 On large cardinal preservation for generalized Baire Space

12:30-14:00 Lunch Break

Satellite Workshop: Generalized Baire Space
14:00-14:45 TBA
 TBA
14:45-15:30
 Final discussion session

Satellite Workshop: Trends in Proof Theory
09:15-10:00 SCHUSTER
 Eliminating Disjunctions by Disjunction Eliminations
10:00-10:45 OKADA
 Husserlian Notion of Manifold as Proof-Rewrite Networks and its Extension

10:45–11:00 Coffee Break

Satellite Workshop: Trends in Proof Theory
11:00-11:45 STRAHM
 A Feferman-style Type System for the Small Veblen Ordinal
11:45-12:30 BENINI
 Proof-Theoretic Semantics: Point-free meaning of first-order systems

12:30-14:00 Lunch Break

Satellite Workshop: Trends in Proof Theory
14:00-14:45 PROBST
 Modular Ordinal Analysis of Subsystems of Second Order Arithmetic of Strength up to ID_1
14:45-15:30 JÄGER
 Recent Developments in Operational Set Theory

16:00-17:00 Opening

17:00 - 18:00 CARBONE,
 One-dimensional and three-dimensional protein spaces and protein evolution

19:30 - 21:00 Senatsempfang - Hamburger Rathaus

Hörsaal A
 09:00 - 10:00 EICHMAIR,
 Minimal surfaces, isoperimetry, and non-negative scalar curvature in asymptotically flat manifolds

Hörsaal C

Hörsaal H

Hörsaal J

Hörsaal K

Hörsaal M

10:00 - 10:30 Coffee Break				
<p>MS#1: 10:30-11:10 GREIFRATH, Abituraufgaben in Zellen von Bildungsstandards</p> <p>11:10-11:50 BRÜDER, Zur Modellierung des Anforderungsprofils von Abituraufgaben: Deutschland und Österreich im Vergleich</p> <p>11:50-12:30 BLUM, Modellieren im Abitur – was geht und was geht nicht?</p>	<p>MS#4: 10:30-11:00 KUTYNIOK, Optimal Compressive Imaging for Fourier Data</p> <p>11:00-11:30 LORENZ, Recoverable supports in sparse reconstruction</p> <p>11:30-12:00 FRIKEL, On the use of highly directional representations in incomplete data tomography</p> <p>12:00-12:30 GERTH, A stochastic convergence analysis for Tikhonov regularization with sparsity constraints</p>	<p>MS#39: 10:30-10:40 Introduction</p> <p>10:40-11:05 BARBAS, Mathematik-Brückenhilfen an der Schnittstelle Schule-Hochschule: die Beispiele OMB+ und Hamburger Orientierungstest</p> <p>11:05-11:30 HAASE, Einsatzszenarien für MINT-Online-material und Onlinekurse an der Schnittstelle Schule / Hochschule.</p> <p>11:30-11:55 SCHLINGEMANN, Mengenlehre im Schulunterricht. Ein Beitrag zur Verbesserung der Studierfähigkeit im MINT-Bereich?</p> <p>11:55-12:20 SCHRAMM, Back to (School/University) : Ein Modell zur Kooperationen von Schulen und Hochschulen.</p>	<p>MS#17: 10:30-10:40 RINNE, ANDERSSON, Welcome and introduction</p> <p>10:40-11:10 CEDERBAUM, Uniqueness of photon spheres in static vacuum isolated systems</p> <p>11:10-11:40 MEINEL, Constructive proof of the no-hair theorem</p> <p>11:40-12:10 KUNZ, Hairy black holes</p> <p>12:10-12:30 GUNDLACH, Critical phenomena in gravitational collapse</p>	<p>MS#18: 10:30-11:00 KNOPP, Introduction to the Principles of Magnetic Particle Imaging</p> <p>11:00-11:30 BRANDT, Sparse image reconstruction for magnetic particle imaging</p> <p>11:30-12:00 STORATH, Joint Image Reconstruction and Segmentation in Magnetic Particle Imaging</p> <p>12:00-12:30 DE MARCHI, Trivariate polynomial approximation on Lissajous curves</p>
12:30 - 14:00 Lunch Break				
<p>MS#1: 14:00-14:40 BUSSE, Die Hamburger Abituraufgaben im Fach Mathematik – Stärken, Schwächen, Perspektiven</p> <p>14:40-15:00 Discussion</p>	<p>MS#4: 14:00-14:30 TESCHKE, Different faces of the shearlet group</p> <p>14:30-15:00 PETERSEN, Directional Anisotropic Multiscale Systems on Bounded Domains</p>	<p>MS#21: 14:00-14:30 IMKELLER, Model selection for paleo-climatic time series: stable and fractional noise</p> <p>14:30-15:00 KUNA, Extreme Value theory for dynamical systems</p>	<p>MS#17: 14:00-14:30 DONNINGER, Blowup results for nonlinear wave equations</p> <p>14:30-15:00 HOLZEGEL, Recent progress in the black hole stability problem</p>	<p>MS#18: 14:00-14:30 LORENZ, Computational Regularization of Inverse Problems</p> <p>14:30-15:00 FRIKEL, Reconstructions in Magnetic Particle Imaging using curved field free lines</p>
15:00 - 15:15 Coffee Break				
<p>Section 3: 15:15-15:55 WALTHER, The semiflow of a delay differential equation on its solution manifold</p> <p>15:55-16:35 PODVIGINA, CHOS-SAT, Pseudo-simple cycles in \mathbb{R}^4 and their properties</p> <p>16:35-16:55 BERGER, Controlled invariance for nonlinear descriptor systems</p> <p>16:55-17:15 WATERSTRAAT, On bifurcation for semilinear elliptic Dirichlet problems on shrinking domains</p>	<p>Section 7: 15:15-15:35 LUDWIG, Entdeckendes, forschendes und projektartiges Lernen im mathematikunterricht</p> <p>15:35-15:55 RÖSKEN-WINTER, Schilervorstellungen zu Konzepten der Analysis: Rolle von Concept image – Concept definition für den Begriffserwerb</p> <p>15:55-16:15 SCHIEMANN, Mit den Mathewichtigen Mathematik entdecken – wieso, weshalb, warum?</p> <p>16:15-16:35 TÖRNER, Mathematiklehrerfortbildungen als Interventionsaktivitäten –Einsichten nach 4 Jahren DZLM-Erfahrungen</p> <p>16:35-16:55 MUMM, Die kurze Blüte der interdisziplinären Zeitschriften „Quellen und Studien zur Geschichte der Mathematik“</p>	<p>Section 7: 15:15-15:55 HEFENDEHL-HEBEKER, Fachliche Perspektiven auf mathematische Unterrichtsgegenstände</p> <p>15:55-16:35 BARZEL, Mathematik mit digitalen Werkzeugen: lernen.verstehen.lehren</p> <p>16:35-17:15 ELSCHENBROICH, Die interaktive Funktionenlupe – Ein Vorschlag zur visuellen Vermittlung von Grundvorstellungen der Analysis</p>	<p>Section 2: 15:15-15:35 AMANN, ZILLER, Geometrically formal homogeneous metrics of positive curvature</p> <p>15:35-15:55 FAJMAN, KRÖNGKE, Stable fixed points of the Einstein flow with positive cosmological constant</p> <p>15:55-16:15 BRANDER, Harmonic maps and geometric Cauchy problems</p> <p>16:15-16:35 SLOVAK, Subriemannian metrizablety of some parabolic geometries</p> <p>16:35-16:55 SUHR, On pseudo-Riemannian surfaces all of whose geodesics are closed</p> <p>16:55-17:15 HERMANN, Surgery and the positive mass conjecture.</p>	<p>Section 2: 15:15-15:35 AMANN, ZILLER, Geometrically formal homogeneous metrics of positive curvature</p> <p>15:35-15:55 FAJMAN, KRÖNGKE, Stable fixed points of the Einstein flow with positive cosmological constant</p> <p>15:55-16:15 BRANDER, Harmonic maps and geometric Cauchy problems</p> <p>16:15-16:35 SLOVAK, Subriemannian metrizablety of some parabolic geometries</p> <p>16:35-16:55 SUHR, On pseudo-Riemannian surfaces all of whose geodesics are closed</p> <p>16:55-17:15 HERMANN, Surgery and the positive mass conjecture.</p>
17:15 - 17:45 Coffee Break				
<p>17:45 - 18:45 SANDSTEDE, Turing patterns: past and present</p> <p>18:45 - 19:30 Reception</p>				<p>Lehrertag: 17:45-18:45 LOOS, ZIEGLER, Panorama der Mathematik</p>
<p>19:30 - 21:00 Öffentliche Podiumsdiskussion</p>				

W120

W121

W122

W220

W221

W222

W223

<p>MS#35: 10:30-11:00 ABBONDANDOLO, Sharp systolic inequalities in Reeb dynamics 11:00-11:30 MARKVORSEN, Geometric potential analysis for minimal surfaces and foams 11:30-12:00 LESCH, Modular curvature and Morita equivalence 12:00-12:30 DE GOSSON, Maximal symplectic covariance properties for classes of pseudo- differential operators</p>	<p>MS#27: 10:30-11:00 CHRYSAFINOS, Stability estimates of discontinuous Galerkin schemes for the Allen- Cahn equation and applications to optimal control 11:00-11:30 HINZE, Global minima of semilinear opti- mal control problems 11:30-12:00 CASAS, Error Estimates for the Approxima- tion of the Velocity Tracking Pro- blem with Bang-Bang Controls 12:00-12:30 WACHSMUTH, Exponential convergence of hp- finite element discretization of op- timal boundary control problems with elliptic partial differential equations</p>	<p>MS#32: 10:30-11:00 IKEGAMI, On a class of maximality principles in Alexandrov spaces 11:00-11:30 THOMAS, Invariant random subgroups of lo- cally finite groups 11:30-12:00 SCHRITTESSER, More maximal independent sets in forcing extensions 12:00-12:30 DZAMONJA, On the width of wags</p>	<p>MS#37: 10:30-11:10 GALAZ-GARCIA, Isometric Lie group actions on Alexandrov spaces 11:10-11:50 KOLLROSS, Recent results on polar actions 11:50-12:30 BECHTLUFT- SACHS, Congruence invariants for holomorphic maps and rigidity</p>	<p>MS#15: 10:30-11:00 AURZADA, Quantization of jump processes 11:00-11:30 BASSE- O'CONNOR, On ϕ-variation of stochastic pro- cesses with exponential moments 11:30-12:00 DRAPATZ, Exchangeability and infinite divisibility 12:00-12:30 KIMMIG, Order selection criteria for CARMA processes</p>	<p>MS#36: 10:30-11:00 WALTHER, Introductory lecture 11:00-11:30 ERNEUX, Periodic square-wave oscillations in nonlinear optics 11:30-12:00 YANCHUK, Stability of plane wave solutions in complex Ginzburg-Landau equati- on with delayed feedback</p>	<p>MS#2: 10:30-11:10 GILMAN, How useful is the word problem? 11:10-11:50 SHPILRAIN, Homomorphic encryption of group elements 11:50-12:20 KUFLEITNER, Variants of the Burrows-Wheeler Transform</p>
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12:30 - 14:00 Lunch Break

<p>MS#35: 14:00-14:30 SCHULZ-BALDES, Index theorems for symplectic pro- jections 14:30-15:00 AZZALI, Relative spectral invariants and ope- rator algebraic point of view</p>	<p>MS#27: 14:00-14:30 HERZOG, Preconditioned Solution of Nonli- near Optimal Control Problems by Trust-Region SQP Methods 14:30-15:00 NEUMÜLLER, A parallel space-time multigrid me- thod for parabolic optimal control problems</p>	<p>MS#32: 14:00-14:30 TÖRNQUIST, Definable maximal orthogonal fa- milies in the forcing extension of L 14:30-15:00 FISCHER, Bounding, splitting and almost dis- jointness can be quite different</p>	<p>MS#13: 14:00-14:30 HÄRDLE, HUANG, MIHOCI, PETUKHINA, VOGT, Collective biographies – the database 'BBI – Biographical Background Information' 14:30-15:00 VOGT, Ladislav von Borkiewicz and his contribution to the popularisation of statistics</p>	<p>MS#15: 14:00-14:30 SAURI, On the class of distributions of sub- ordinated Lévy processes 14:30-15:00 BEHME, Exponential functionals of Lévy processes with jumps</p>	<p>MS#36: 14:00-14:45 VAS, Large-amplitude periodic solutions for delay equations with positive feedback</p>	<p>MS#2: 14:00-14:30 MOLDENHAUER, Cryptographic protocols based on Nielsen transformations 14:30-15:00 KAHROBABI, Algorithmic Problems in Polycyclic Groups</p>
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15:00 - 15:15 Coffee Break

<p>Section 1: 15:15-15:35 WEBER, Finite spectral representations of the partition and divisor function 15:35-15:55 KAHLER, MILLER, O'NEILL, Irreducible decomposition of bino- mial ideals 15:55-16:15 LAMPE, Approximately periodic sequences attached to non-crystallographic root system 16:15-16:35 SCHAUMANN, Traces and centers from 3d topolo- gical field theory 16:35-16:55 SCHREIBER, Obstruction Theory for Parameteri- zed Higher WZW-Terms</p>	<p>Section 8: 15:15-15:35 BAYS, Compact Complex Manifolds with a generic Automorphism 15:35-15:55 GALEOTTI, Wehrauch degrees for generalized Baire space 15:55-16:15 PETRAKIS, Basic homotopy theory of Bishop spaces 16:15-16:35 SCHUSTER, RI- NALDI, Transfinite Methods as Admissible Rules 16:35-16:55 KUBIS, Game theoretic approach to Fraïssé limits 16:55-17:15 BOWLER, Chameleons and flutters</p>	<p>Section 5: 15:15-15:55 RÖCKNER, Infinite Dimensional Continuity and Fokker-Planck-Kolmogorov Equati- ons 15:55-16:15 FREIBERG, SEI- FERT, Dirichlet forms for singular diffusi- on processes 16:15-16:35 HAGGER, On Spectral Properties of Certain Random Operators 16:35-16:55 JAHN, MARTINI, RICHTER, Ball convex bodies in Minkowski spaces 16:55-17:15 KALAUCH, Ideals and Bands in Pre-Riesz Spaces</p>	<p>Section 9: 15:15-15:35 GARCKE, HECHT, HINZE, KAHLER, LAM, Shape optimization for surface functionals in Navier-Stokes flow using a phase field approach 15:35-15:55 SCHÄFER, HER- ZOG, MEYER, Optimal Control of Thermovisco- plasticity 15:55-16:15 SUSU, MEYER, Analysis and optimal control of a gradient enhanced damage model 16:15-16:35 TRAN, Matrix coefficient identification in an elliptic equation 16:35-16:55 WINKLER, APEL, PEPPERER, Mesh refinement for the numerical approximation of Neumann bound- ary control problems on polyhedra 16:55-17:15 STEINIG, A Posteriori Error Estimation for State-Constrained Elliptic Optimal Control Problems</p>	<p>Section 6: 15:15-15:55 SCHICK, Signature and higher index theory 15:55-16:35 DEGRUISE, HAUSMANN, LÜCK, PATCHKO- RIA, SCHWEDE, Proper equivariant stable homoto- py theory 16:35-17:15 DEGRUISE, PATCHKORIA, BARCENAS, Stable finiteness properties of infinite discrete groups</p>
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10:30-12:30 KIEFER, BALLEIER,
Präsentation von Finanzierungsmöglichkeiten mathematischer Forschung durch die Deutsche Forschungsgemeinschaft (DFG) mit Diskussion

Studierendenkonferenz:

14.00-14.10 Begrüßung

14.10-14.30 NGUYEN,
Quenched Invariance Principle for the Random Conductance Model

14.35-14.55 SKRODZKI,
Smooth(ing) Neighborhoods

15:00 - 15:15 Coffee Break

Studierendenkonferenz:

15.15-15.35 ZHOU,
Behind the Speed Factors of SOR

15:40-16:00 GROTE,
Asymptotische Geometrie von Zufallspolytopen mittels Kumulanten

16:05-16:25 GRÄSSLE,
POD based inexact SQP methods for optimal control problems

16:30-16:50 SPRATTE,
A geometric reduction theory for indefinite binary quadratic forms over \mathbb{Z}

16:55-17:15 KANT,
Kardinalzahlfolgen in ZFC

Section 10:

15:15-15:35 HÖRRMANN, HUG, REITZNER, THÄLE,
Poisson polyhedra in high dimensions

15:35-15:55 KUEHN, BERGLUND, GENTZ,
Stochastic Mixed-Mode Oscillations

15:55-16:15 MATTNER,
An optimal Berry-Esseen type theorem for expectations of smooth functions

16:15-16:35 SCHULTE,
Limit theorems for random geometric graphs

16:35-17:15 LÖWE,
Spin models on random networks



Hörsaal A	Hörsaal H	Hörsaal J	Hörsaal K	Hörsaal M
<p>09:00 - 10:00 BRINGMANN, Meromorphic Maass forms</p>				
<p>MS#31: 10:30-11:00 BACHMANN, A combinatorial approach to classical modular forms inspired by multiple zeta values 11:10-11:40 VIAZOVSKA, CM values of regularized theta lifts over totally real fields 11:50-12:20 ALPES, Harmonic Maass forms, periods and CM values</p>	<p>MS#21: 10:30-11:00 VANNITSEM, Chaos and predictability in geophysical flows 11:00-11:30 BLENDER, Geophysical Fluid Dynamics in Nambu Form 11:30-12:00 FARANDA, Dynamical Extremes of Mid-Latitude atmospheric circulation 12:00-12:30 SCHUBERT, Covariant Lyapunov vectors of a quasi-geostrophic baroclinic model: analysis of instabilities and feedbacks</p>	<p>MS#17: 10:30-11:00 GIULINI, Aspects of 3-manifold theory in general relativity 11:00-11:30 FRIEDRICH, Some global results and problems for Einstein's field equations 11:30-12:00 LIEBSCHER, The tumbling universe: cosmological models in the big-bang limit 12:00-12:30 HELL, Chaotic heteroclinic structure for extreme gravity models</p>	<p>MS#6: 10:30-11:10 KALLSEN, Are American options European after all? 11:10-11:50 WEBER, Measures of Systemic Risk 11:50-12:30 DESMETTRE, Optimal Investment with Illiquid Assets</p>	<p>MS#20: 10:30-11:00 BOTHE, Modeling of mass-transfer across contaminated fluid interfaces 11:00-11:30 GRÜN, On micro-macro models for two-phase flow with dilute polymeric solutions – modeling and analysis 11:30-12:00 STINNER, Phase-field modelling of surfactants in multi-phase flow 12:00-12:30 HEIDA, Modeling of fluid interfaces</p>
10:00 - 10:30 Coffee Break				
<p>MS#4: 10:30-11:00 PFANDER, Gabor spaces and the Balian-Low Theorem 11:00-11:30 JAKOBSEN, Regular Gabor systems on locally compact abelian groups 11:30-12:00 FÜHR, Continuous wavelet analysis in higher dimensions 12:00-12:30 LEMVIG, Wavelets for non-expanding dilations</p>	<p>MS#10: 14:00-14:30 ADAMASZEK, Victoris-Rips dynamics on the circle 14:30-15:00 BOES, On computations of the homology of moduli spaces of Riemann surfaces</p>	<p>MS#17: 14:00-14:30 ANSORG, High-accuracy methods for black-hole perturbations: quasi-normal-modes filtering 14:30-15:00 PÜTZFELD, Test body motion in gravity</p>	<p>MS#18: 14:00-14:30 AHLBORG, Image Reconstruction in Magnetic Particle Imaging within the Scope of Imaging Sequences 14:30-15:00 WEIZENECKER, Dynamisches Verhalten der magnetischen Teilchen in MPI</p>	<p>MS#20: 14:00-14:30 GIESSELMANN, Relative entropy estimates for the Navier-Stokes-Korteweg model 14:30-15:00 PESCHKA, Thin-film equations with free boundaries</p>
12:30 - 14:00 Lunch Break				
<p>MS#4: 14:00-14:30 EHLER, On Grassmannian designs and applications 14:30-15:00 KING, Algebraic and geometric spread in finite frames</p>	<p>Section 3: 15:15-15:35 BACH, BALLESTEROS, KÖNENBERG, MENRATH, Continuous Multi-Scale Analysis for Ground States in Infrared-divergent Spin-Boson Models 15:35-15:55 EVEQUOZ, Existence and asymptotic properties of real-valued solutions to the nonlinear Helmholtz equation 15:55-16:15 CURRAN, Reaction-Diffusion Equations with Hysteresis in Higher Spatial Dimensions 16:15-16:35 MANDEL, BARTSCH, Infinitely many global continua bifurcating from a single solution of an elliptic problem with a concave-convex nonlinearity 16:35-16:55 DÜLL, SCHNEIDER, WAYNE, Justification of the Nonlinear Schrödinger equation for the evolution of gravity driven 2D surface water waves in a canal of finite depth 16:55-17:15 GIANNOULIS, Interaction of modulated water waves of finite depth</p>	<p>Section 7: 15:15-15:35 BEELEY, Apollonius analyticus. Algebra im ländlichen England im 17. Jahrhundert 15:35-15:55 DURNOVA, Václav Hlavaty (1894-1969) and the educational reform in postwar Czechoslovakia 15:55-16:15 ODEFFEY, Carl Gustav Jacob Jacobi und sein Verhältnis zur Musik 16:15-16:35 REICH, Der Briefwechsel Emil Artin & Helmut Hasse in den 50er Jahren 16:35-16:55 SIEGMUND-SCHULTZE, Karl Weierstraß' Approximationssatz (1885), und seine Bemühungen um dessen Verallgemeinerung unter dem Einfluss seines Schülers Georg Cantor 16:55-17:15 ULLRICH, Karl Weierstraß als Algebraiker</p>	<p>Section 2: 15:15-15:35 FERNÁNDEZ, FINO, MANERO, Einstein G_2 manifolds obtained as warped products 15:35-15:55 DIETERICH, Curvature properties of the Kähler/Kähler correspondence 15:55-16:15 LÜDEWIG, Path Integrals on Manifolds with Boundary 16:15-16:35 MEINKE, Homogeneous pseudo-Hermitian irreducible spaces 16:35-16:55 KLINKER, On moduli spaces of supergravity backgrounds 16:55-17:15 HANISCH, Variational calculus on supermanifolds</p>	<p>Section 2: 15:15-15:35 FREIBERT, SWANN, The shear construction 15:35-15:55 NAGY, Systems of symplectic forms on four-manifolds 15:55-16:15 MADSEN, (Special) geometry defined by 4-forms in dimension 8</p>
15:00 - 15:15 Coffee Break				
<p>MS#21: 14:00-14:30 LUCARINI, Response and Fluctuations in Geophysical Fluid Dynamics 14:30-15:00 KLEIN, Sound-proof approximations for atmospheric flows – a three-scale problem lacking a limit equation</p>	<p>Section 3: 15:15-15:35 BACH, BALLESTEROS, KÖNENBERG, MENRATH, Continuous Multi-Scale Analysis for Ground States in Infrared-divergent Spin-Boson Models 15:35-15:55 EVEQUOZ, Existence and asymptotic properties of real-valued solutions to the nonlinear Helmholtz equation 15:55-16:15 CURRAN, Reaction-Diffusion Equations with Hysteresis in Higher Spatial Dimensions 16:15-16:35 MANDEL, BARTSCH, Infinitely many global continua bifurcating from a single solution of an elliptic problem with a concave-convex nonlinearity 16:35-16:55 DÜLL, SCHNEIDER, WAYNE, Justification of the Nonlinear Schrödinger equation for the evolution of gravity driven 2D surface water waves in a canal of finite depth 16:55-17:15 GIANNOULIS, Interaction of modulated water waves of finite depth</p>	<p>Section 2: 15:15-15:35 FERNÁNDEZ, FINO, MANERO, Einstein G_2 manifolds obtained as warped products 15:35-15:55 DIETERICH, Curvature properties of the Kähler/Kähler correspondence 15:55-16:15 LÜDEWIG, Path Integrals on Manifolds with Boundary 16:15-16:35 MEINKE, Homogeneous pseudo-Hermitian irreducible spaces 16:35-16:55 KLINKER, On moduli spaces of supergravity backgrounds 16:55-17:15 HANISCH, Variational calculus on supermanifolds</p>	<p>Section 2: 15:15-15:35 FREIBERT, SWANN, The shear construction 15:35-15:55 NAGY, Systems of symplectic forms on four-manifolds 15:55-16:15 MADSEN, (Special) geometry defined by 4-forms in dimension 8</p>	<p>16:35-16:55 BAUES, GLOBKE, Compact Pseudo-Riemannian Solvmanifolds 16:55-17:15 GRANDJEAN, GRIEBER, The exponential map based at a singularity</p>
17:15 - 17:45 Coffee Break				
<p>17:45 - 18:45 THOMAS A descriptive view of infinite dimensional unitary representations</p>				
19:30 - 21:00 Conference Dinner - Mozartsäle				

W120

MS#35:
10:30-11:00 BÄR,
 An index theorem for Lorentzian manifolds
11:00-11:30 PORTALURI,
 Index theory in celestial mechanics: recent results and new perspectives
11:30-12:00 FURUTANI,
 Isospectral but non-diffeomorphic nilmanifolds attached to Clifford modules
12:00-12:30 ØRSTED,
 Symplectic areas of triangles and the Maslov index

W121

MS#27:
10:30-11:00 NEITZEL,
 On an optimal control problem governed by a regularized phase field fracture propagation model
11:00-11:30 KRÖNER,
 On internal exponential stabilization to a nonstationary solution for 1D Burgers equation
11:30-12:00 RÖSCH,
 Optimal Control of a Chemotaxis System
12:00-12:30 RYLL,
 On the optimal control of wave-type solutions in some reaction-diffusion equations

MS#35:
14:00-14:30 WAHL,
 On the noncommutative Maslov index
14:30-15:00 NEST,
 Deformations of coisotropic submanifolds and index of a class of Fourier integral operators

MS#27:
14:00-14:30 TRÖLTZSCH,
 Optimal Control of Electromagnetic Fields in Multiply Connected Conductors

W122

MS#32:
10:30-11:00 CHODOUNSKY,
 Y-c.c. and Y-proper posets
11:00-11:30 LÜCKE,
 Chain conditions, layered partial orders and weak compactness
11:30-12:00 MILDENBERGER,
 Subfactors of Blass-Shelah Forcing

MS#32:
14:00-14:30 UHLENBROCK,
 Mice with finitely many Woodin cardinals from optimal determinacy hypotheses
14:30-15:00 DIMONTE,
 Generic 10 at \aleph_0

W220

MS#37:
10:30-11:10 FINO,
 Tamed symplectic structures on solvmanifolds
11:10-11:50 FISHER,
 Localization for K-contact manifolds
11:50-12:30 SABATINI,
 Group actions in symplectic geometry

12:30 - 14:00 Lunch Break

W221

MS#15:
10:30-11:00 STELZER,
 Geometric Ergodicity of the Multivariate Continuous-time GARCH(1,1) Process
11:00-11:30 BARGZY,
 Stationarity and ergodicity for an affine two-factor model
11:30-12:00 HEINRICH,
 High frequency statistic for Lévy semistationary processes
12:00-12:30 BÖTTCHER,
 Markov chain approximations to jump processes

MS#15:
14:00-14:30 SIMON,
 Computing harmonic measures for the Lévy stable process
14:30-15:00 KASSMANN,
 Intrinsic scaling for Markov processes

W222

MS#36:
10:30-11:00 LANI-WAYDA,
 Chaotic motion in delay equations
11:00-11:30 HADELER,
 Quiescent Phases and Differential Delay Equations
11:30-12:00 BARBAROSSA,
 Challenges in modeling immunology ... and how delays can help
12:10-12:30 HEROLD,
 Matrix Assumptions and Polynomial Spaces

MS#36:
14:00-14:30 STUMPF,
 TBA (lecture on open problems)

W223

MS#2:
10:30-11:10 KREUZER,
 Algebraische Fehlerangriffe
11:10-11:50 STEINWANDT,
 Resource estimates for quantum cryptanalysis
11:50-12:10 KELL,
 Exploring the solution space and improving the run-time of the BDHCP-algorithm
12:10-12:30 HEROLD,
 Matrix Assumptions and Polynomial Spaces

MS#2:
14:00-14:40 MYASNIKOV,
 Model Theory and Complexity of Free Solvable Groups with applications to cryptography
14:40-15:00 FINE, ROSENBERGER,
 A Provably Secure Password Security System

W224

Section 1:
15:15-15:35 ROBERT, HOGAN CAMP,
 Toward the colored sl_n -homology
15:35-15:55 LAUGWITZ,
 A categorical action for rational Cherednik algebras
15:55-16:15 TUBBENHAUER,
 Cellular structures using Uq-tilting modules
16:15-16:35 LENTNER,
 Quantum groups and logarithmic conformal field theories
16:35-16:55 VOCKE,
 Classification of Borel subalgebras of quantum groups
16:55-17:15 HECKENBERGER, WANG,
 Nichols algebras of diagonal type over arbitrary fields

Section 8:
15:15-15:35 JAHNKE,
 Dp-minimal ordered fields
15:35-15:55 KHOMSKII,
 Infinitely equal trees and Cohen reals
15:55-16:15 BLOCK,
 Modal Logics of Set Theoretic Multiverses
16:15-16:35 NOBREGA,
 Game characterizations of functions of finite Baire class
16:35-16:55 WILKEN,
 Pure Patterns of Resemblance
16:55-17:15 KNOSPE, SERPÉ,
 Nonstandard Number Fields

W225

Section 4:
15:15-15:35 REINER, RIPPOLL, STUMP,
 Coxeter elements from Springer theory
15:35-15:55 KAHLE, MICHALEK,
 Plethysm and lattice point counting
15:55-16:15 HAASE,
 The homogenized hives matrix has a regular unimodular triangulation
16:15-16:35 LANGFELD,
 On convex subsets of lattice tilings
16:35-16:55 LADISCH,
 Affine Symmetries of Orbit Polytopes
16:55-17:15 ALPERS,
 Tesselation Inversion and Tomography Applications

W226

Section 5:
15:15-15:55 ABELS, PREUFER,
 Pseudodifferential Operators and Applications
15:55-16:15 ADLER, BOMBIERI, ENGEL,
 On perturbations of generators of analytic semigroups
16:15-16:35 WEBER, PLIEV,
 On finite elements in some vector lattices of nonlinear operators
16:35-16:55 BATRA,
 Entire functions, zero-location and structured minors: Characterizations, structural operations and applications
16:55-17:15 INFUSINO,
 The moment problem on infinite dimensional basic semi-algebraic sets

W227

Section 9:
15:15-15:35 BREMER,
 Using a standard SQP solver for optimization problems involving probabilistic constraints
15:35-15:55 HINZE, JORDAN,
 Finite element analysis of Free Material Optimization problems
15:55-16:15 LUDOVICI, NEITZEL, WOLLNER,
 Error estimates for nonstationary optimal control problems with state constraints
16:15-16:35 KRÖNER, KRÖNER, KRÖNER,
 Numerical approximation of level set power mean curvature flow
16:35-16:55 SHOKINA,
 On numerical simulation of tsunami run-up generated by submarine landslide
16:55-17:15 GIL, STRUCKMEIER,
 Kinetic-Induced Moment System for non-linear balance laws

W228

Section 6:
15:15-15:55 NAUMANN,
 Descent up to nilpotence in equivariant stable homotopy theory
15:55-16:35 ROENDIGS,
 Stable motivic homotopy groups of spheres
16:35-17:15 LAURES,
 TMF-charakteristische Zahlen

	O112	O114	O222	O232	O233
<p>Studierendenkonferenz: 10:30-10:50 LITZA, Distributed Computing using Combinatorial Topology 10:55-11:15 GRABS, Geometrische Behandlung eines Problems aus der Elastostatik 11:20-11:40 LEGLER, Aufgaben der Mautoptimierung als MPCCs 11:45-12:05 BITTERLICH, Algorithmen des Reinforcement Learning 12:10-12:30 LÜDTKE, Birationale Anabelsche Geometrie von Kurven</p>	<p>MS#22: 10:30-11:30 KOHLHASE, Introduction: Mathematics on the Web and Mathematical Knowledge Management 11:30-12:00 ARNDT, What the OEIS can do for you and what you can do for the OEIS 12:00-12:30 TESCHKE, Toward a Global Digital Mathematics Library: building connections between reviewing services, digital collections and formalized mathematics</p>	<p>MS#12: 10:30-11:00 CASTRO, LOHSE, Introductory talk 11:00-11:30 CHOSSAT, Heteroclinic cycles in Hopfield networks 11:30-12:00 KELLNER, Codimension one D_{4m}-symmetric homoclinic cycles 12:00-12:30 RADEMACHER, Singularities of front dynamics in FitzHugh-Nagumo type systems</p>	<p>MS#34: 10:30-11:10 TOFT, Gabriel Andrew Dirac (1925-1984) and his pioneering work in graph theory 11:10-11:50 KREUTZER, The Directed Grid Theorem 11:50-12:30 BANG-JENSEN, Arc-disjoint flows in capacitated digraphs</p>	<p>MS#26: 10:30-11:30 NAERT, Octonions from a Clifford Algebra point of view 11:30-12:30 ESCHENBURG, Octonions and Symmetric Spaces</p>	<p>MS#26: 14:00-14:30 SCHAUDT, Coloring graphs without long induced paths 14:30-15:00 BOWLER, Remarks on the packing/covering conjecture</p>
12:30 - 14:00 Lunch Break					
<p>Studierendenkonferenz: 14:00-14:20 MÜNCH, Li-Yau inequality on finite graphs via non-linear curvature dimension conditions 14:25-14:45 VOSS, Eigenvalue pinching on spin and spinC manifolds</p>	<p>MS#22: 14:00-14:30 GREUEL, Mathematics software information: The swMATH service 14:30-15:00 SPERBER, Citing software: A proposal</p>	<p>Section 10: 15:15-15:35 FREENTRUP, BILAREV, BECHERER, Optimal Liquidation in a Multiplicative Market Impact Model 15:35-15:55 KENTIA, BECHERER, Hedging under good-deal bounds and model uncertainty 15:55-16:15 AZIMI, GRECKSCH, Forward stochastic Volterra integral equations in Banach spaces 16:15-16:35 DINEV, On Buehler confidence regions 16:35-17:15 KREISS, PAPARODITIS, Bootstrapping Locally Stationary Processes</p>			
15:00 - 15:15 Coffee Break					
<p>Studierendenkonferenz: 15:15-15:35 KÖNNEMANN, Lösbarkeit von Randwertproblemen mittels komplexer Integralgleichungen 15:40-16:00 GEBHARD, Heterokline Lösungen Hamiltonscher Systeme zweiter Ordnung 16:05-16:25 TERHAAR, Quilted Gabor Frames and Fusion Frames 16:30-16:50 GRABMAYR, Klassifikation von Modellen dimensionaler omega-stabiler Theorien 16:55-17:15 STELZIG, Weil-Reziprozität für Blätterungen durch Riemannsche Flächen</p>					

09:00 - 10:00 ELLIOTT
PDEs on evolving domains

MS#31:
10:30-11:00 BRUNIER,
Classes of Heegner divisors and traces of singular moduli
11:10-11:40 V. PIPPICH,
Kronecker limit type formulae and regularized determinants
11:50-12:20 RISAGER,
The hyperbolic circle problem

MS#3:
10:30-11:00 AVETISYAN,
On Analysis of Hyperbolic PDO and AQFT
11:00-11:30 STROHMAIER,
An index theorem for Lorentzian spacetimes
11:30-12:00 SANDERS,
Ground states for radiating static black holes
12:00-12:30 FEWSTER,
The split property for QFT in curved spacetimes

MS#10:
10:30-11:00 EGAS SANTANDER,
On the homology of Sullivan diagrams
11:00-11:30 FIRSCHING,
Realizing polytopes with nonlinear programming
11:30-12:00 JOHANSEN,
Visualizing and finding automorphisms of graph algebras
12:00-12:30 RAMIREZ-SOLANO,
The amenability problem of the Thompson group F

MS#25:
10:30-11:00 JUNGE,
Adaptive dynamic programming using radial basis functions
11:00-11:30 RUPP,
Towards the Approximation of Stochastic Lyapunov Functions
11:30-12:00 WEBSTER,
Approximation of Lyapunov Functions from Data
12:00-12:30 MOHAMMED,
Verification Estimates for Lyapunov Functions constructed by Radial Basis Functions

MS#19:
10:30-11:00 FORNASIER,
Consistency of probability measure quantization by means of power repulsion-attraction potentials
11:00-11:30 GUILLEMARD,
Persistent homology, signal processing and noncommutative algebras
11:30-12:00 SISSOUNO,
On inpainting with tensor product splines
12:00-12:30 KNOPP,
Compressed sensing and matrix compression in magnetic particle imaging

MS#16:
10:30-11:00 KRÖNER,
Higher order locally adaptive discontinuous Galerkin approach for atmospheric simulations and surface flows
11:00-11:30 KORN,
Mimetic Discretization Methods for Numerical Modeling of Atmosphere and Ocean
11:30-12:00 AIZINGER,
Discontinuous Galerkin finite element modeling system for coastal and regional ocean
12:00-12:30 LUKACOVA-MEDVIDOVA,
Asymptotic preserving IMEX FV-methods for singular limit atmospheric flows

12:00 - 15:00 Mittagsemnar Mathematik in Industrie und Gesellschaft

15:00 - 15:15 Coffee Break

Section 3:
15:15-15:35 LANKBEIT,
Equilibration of unit mass solutions to a degenerate parabolic equation with a nonlocal gradient nonlinearity
15:35-15:55 MERKER, MATAS,
Doubly nonlinear evolution equations with nonpotential or dynamic relation between state variables
15:55-16:15 PUHST,
Existence results to the nonlinear peridynamic model in nonlocal elastodynamics
16:15-16:35 LJTTIG,
Perturbation of the eigenvalue problem of the 1-Laplace operator
16:35-16:55 FALL, JAROHS,
Overdetermined problems with fractional Laplacian

Section 3:
15:15-15:35 FUHRMANN,
Synaptic transmission and ethanol
15:35-15:55 HELL,
Dynamics of the MAPK cascade
15:55-16:15 GIESL,
Determination of the Basin of Attraction by Contraction Metrics
16:15-16:35 HAFSTEIN,
The CPA Method to compute Lyapunov functions via linear programming
16:35-16:55 LASARZIK,
Existence of solutions to the Erickson-Leslie model for a general class of free energies

Section 7:
15:15-15:35 BOSSE,
Was Mathematiker/innen über den fachfremdgeteilten Mathematikunterricht wissen sollten
15:35-15:55 BUSSE,
Professionelle Kompetenz von Mathematiklehkräften
15:55-16:15 JANETZKO,
Die Integration von Rückmeldungen der Studenten in die universelle Oberfläche für CAS
16:15-16:35 SCHNEIDER,
Eine Theorie mathematischer Vorbereitungsmaßnahmen in Mathematik-Lehrveranstaltungen

Section 2:
15:35-15:55 BOLDT,
An explicit formula for the Dirac multiplicities on lens spaces
15:55-16:15 SAUVIGNY,
Miscellanea of H-surfaces with one-to-one Central Projection
16:15-16:35 REITER,
The elastic trefoil is the twice covered circle
16:35-16:55 RAFFERO,
A structure result for locally conformal calibrated G2-manifolds
16:55-17:15 KALAFAT, KOCA,
Conformally Kähler surfaces and orthogonal holomorphic bisectonal curvature

Section 2:
15:15-15:35 NARDMANN,
The higher-dimensional positive mass theorem for non-spin manifolds
15:35-15:55 SWOBODA,
On the asymptotic geometry of the Higgs bundle moduli space
15:55-16:15 ZEHMISCH,
Closed Reeb orbits
16:15-16:35 REIDEGELD,
Deformations of cohomogeneity-one G2-manifolds
16:35-16:55 BRANDING,
Renormalization Group Flows as Geometric Flows
16:55-17:15 BELGUN,
Structure of curves in conformal manifolds

MS#33:
17:45-18:15 MEISTER,
Linear and nonparametric models in functional data analysis
18:15-18:45 HÖRMANN,
On the CLT for discrete Fourier transforms of functional time series

MS#3:
17:45-18:15 KHAVKINE,
Supergeometry in classical field theory
18:15-18:45 BENINI,
Global observables for Abelian gauge theories via homotopy colimits

MS#10:
17:45-18:15 RUSTOM,
Reductions of eigenforms modulo prime powers
18:15-18:45 SHAW,
Computations in tropical geometry

MS#25:
17:45-18:15 GIESL,
Computation and verification of Lyapunov functions
18:15-18:45 HAFSTEIN,
Computation of ISS Lyapunov functions for nonlinear systems

MS#19:
17:45-18:15 MAASS,
On the equivalence between k-means clustering and regularized matrix factorization with applications in hyperspectral imaging
18:15-18:45 STÖCKLER,
Real algebraic geometry for the construction of tight wavelet frames

MS#16:
17:45-18:15 HELZEL,
High-order WENO finite volume methods for Cartesian grids
18:15-18:45 KNOTH,
Compressible atmospheric modelling on unstructured grids

19:15 Mitgliederversammlung der DMV

W120

MS#24:
10:30-11:00 ASOK,
 Algebraizing topological vector bundles
11:00-11:30 WENDT,
 A^1 -cobordism and A^1 -weak equivalence of projective line bundles
11:30-12:00 FASEL,
 Cohomological detection of complete intersections

W121

MS#5:
10:30-11:00 JOSWIG,
 Moduli of Tropical Plane Curves
11:00-11:30 KEICHER,
 Computing automorphisms of graded algebras and Mori dream spaces
11:30-12:00 NICOLUSSI,
 On terminal Fano 3-folds with 2-torus action
12:00-12:30 KASTNER,
 Generalizing the Taylor resolution for toric rings

W122

MS#38:
10:30-11:00 SCHMIDT,
 Who was working on well quasi-orders 40+ years ago and why?
11:00-11:30 VAN DER MEEREN,
 Connecting the worlds of well partial-orders and ordinal notation systems
11:30-12:00 RATHJEN,
 What is the strength of the graph minor theorem?
12:00-12:30 CAMERLO,
 Well quasi-orders, better quasi-orders, and classification problems in descriptive set theory

W220

MS#37:
10:30-11:10 MARE,
 Assignments for topological group actions
11:10-11:50 SEMMELMANN,
 Weakly complex homogeneous spaces

W221

MS#14:
10:30-11:00 STREICHER,
 Various ways of splitting and equality of objects
11:00-11:30 HOFMANN,
 The groupoid interpretation of type theory, a personal retrospective
11:30-12:00 GAMBINO,
 Aspects of univalence
12:00-12:30 SCHREIBER,
 Some thoughts on the future of modal homotopy type theory

W222

MS#23:
10:30-10:45 KUHLMANN,
 Murray Marshall: a brief mathematical obituary
10:50-11:20 INFUSINO (IN MEMORIAM MURRAY MARS-HALL),
 A continuous moment problem for locally convex spaces
11:25-11:55 KIMSEY,
 Multidimensional moment problems, the subnormal completion problem and cubature rules
11:55-12:30 KUEHN,
 Moment Closure - A Brief Review

W223

MS#6:
10:30-11:10 CHEN,
 Risk-shifting & optimal asset allocation in life insurance: The impact of regulation
11:10-11:40 ZAGST,
 Pricing of Variable Annuities - Incorporation of Policyholder Behavior
11:40-12:30 KÜHN,
 Modeling capital gains taxes in continuous time

15:00 - 15:15 Lunch Break

Section 1:

15:15-15:35 FUEBIC,
 Intersection matrices in modular representation theory
15:35-15:55 LANINI,
 Filtered modules on moment graphs and periodic patterns
15:55-16:15 EHRIG,
 Graded Brauer algebras and quantum symmetric pairs
16:15-16:35 FOURIER,
 PBW filtrations and degenerations of flag varieties
16:35-16:55 SARTORI,
 Mixed super skew Howe duality
16:55-17:15 SOERGEL,
 WENDT, VIRK,
 Equivariant motives in representation theory

Section 4:

15:15-15:35 HAMANN,
 Cuts and cycles in transitive graphs
15:35-15:55 WIESBERG, REINELT,
 Classification of Trading Networks with Combinatorial Optimization
15:55-16:15 HEUER,
 Forcing Hamilton cycles in infinite graphs
16:15-16:35 TOFT,
 The 2-factor theorem—a remarkable achievement of a German genius
16:35-16:55 REIHER, RÖDL, SCHAGHT,
 Turan problem in weakly quasirandom hypergraphs

Section 9:

15:15-15:35 MATTHES, ALLA, HINZE,
 Optimization and model order reduction of a permanent magnet machine
15:35-15:55 ALLA, HINZE,
 HJB-POD feedback control of advection-diffusion equation with a model predictive control snapshot sampling
15:55-16:15 ZUMBUSCH,
 Optimising finite difference implementations
16:15-16:35 HEITMANN,
 Newton-like iterations beyond the Kung-Traub conjecture

Section 6:

15:15-15:55 SZYMIK,
 Homology and the stability problem in the Thompson group family
15:55-16:15 BÖHM,
 Geometric permutations and two applications
16:15-16:35 UNGHERETTI,
 A dihedral version of the Jones isomorphism
16:35-17:15 ADAMASZEK,
 K-theory is algorithmically computable

17:15 - 17:45 Coffee Break

MS#24:

17:45-18:15 ØSTVÆR,
 A^1 -contractibility of Koras-Russell threefolds
18:15-18:45 NAUMANN,
 Etale descent for algebraic K-theory

MS#5:

17:45-18:15 FRÜHBIS-KRÜGER,
 Betti numbers for determinantal singularities
18:15-18:45 HART,
 Memo: A computer algebra package for Julia

MS#38:

17:45-18:15 NEGRI,
 Well quasi-orders in philosophical logic
18:15-18:45 WILKEN,
 On the well quasi-orderedness of pure patterns of resemblance of order two

MS#14:

17:45-18:15 SPITTERS,
 Cubical sets as a classifying topos
18:15-18:45 VAN DEN BERG,
 Weak universes and homotopy exact completion

MS#23:

17:45-18:35 LYTVA NOV,
 A moment problem for random discrete measures

O112

Studierendenkonferenz:
10:30-10:50 LINKE,
 Architektonische Meisterwerke – ein Projekt im Mathematikunterricht
11:00-12:00 Sektempfang und Preisverleihung durch den DMV-Präsidenten am Stand des Springer-Spektrum Verlages

O124

MS#22:
10:30-11:00 HABERMANN,
 Was ist der neue Fachinformationsdienst Mathematik?
11:00-11:30 ROY,
 Author profiles and authorship disambiguation at zbMATH
11:30-12:00 MUELLER,
 Mathematical Theory Development via Theory Intersection Terminology of Mathematics
12:00-12:30 RABE,
 MMT: A Foundation-Independent Approach to Formalized Mathematics

O222

MS#12:
10:30-11:00 RODRIGUES,
 Dynamics near a homoclinic network with a bifurcation
11:00-12:00 KNOBLOCH,
 Reversible non-elementary T-points

O232

MS#28:
10:30-11:30 LAURITZEN,
 Graphical models for random networks
11:30-12:00 BORGWARDT,
 Circuit Diameters
12:00-12:30 FINHOLD,
 Circuit Diameter II - Circuits in Optimization

O233

MS#26:
10:30-11:30 VAN MALDEGHEM,
 Octonion geometries in the Freudenthal-Tits Magic Square
11:30-12:30 DE SCHEPPER,
 Degenerate Cayley-Dickson algebras

15:00 - 15:15 Coffee Break

MS#22:
17:45-18:45 KOHLHASE,
 SMGLoM: Towards a Semantic Terminology of Mathematics

MS#9:
17:45-18:15 DOELMAN,
 A Geometric Approach to Stationary Defect Solutions
18:15-18:45 GUREVICH,
 Reaction-Diffusion Equations with Spatially Distributed Hysteresis

MS#28:
17:45-18:15 KUBJAS,
 Semialgebraic geometry of nonnegative and psd rank
18:15-18:45 JENSEN,
 Recovering Newton polytopes from tropical hypersurfaces

MS#26:
17:45-18:45 BLUNCK,
 The space of Clifford parallelisms over octonions

Hörsaal A

09:00 - 10:00 ANDERSEN,
Topological quantum field theory in low dimensional topology

Hörsaal C

MS#3:
10:30-11:00 PINAMONTI,
An analytic regularization scheme for time-ordered products on curved spacetime
11:00-11:30 DANG,
Complex powers of analytic functions and meromorphic regularization in QFT
11:30-12:00 HACK,
The generalised principle of perturbative agreement and the thermal mass
12:00-12:30 REJZNER,
BV algebras in causal approach to renormalization

Hörsaal H

MS#8:
10:30-11:00 BECK,
De-aliasing Strategies for High Order Discontinuous Galerkin Methods
11:00-11:30 GERHARD,
Multiwavelet-based grid adaptation
11:30-12:00 NIGRO,
High-order accurate implicit schemes applied to the discontinuous Galerkin discretized Navier-Stokes equations
12:00-12:30 KAISER,
An IMEX-DG method for low-Mach flows

Hörsaal J

MS#25:
10:30-11:00 BAIER,
Control Lyapunov Functions Computed Via Mixed Integer Linear Programming
11:00-11:30 BJÖRNSSON,
Constructing continuous piecewise-affine Lyapunov functions for continuous-time dynamical systems with multiple attractors
11:30-12:00 KOLITA,
Coherent Families: Spectral Theory for Transfer Operators in Continuous Time
12:00-12:30 CUERMUNDSSON,
Triangulation Transformations in \mathbb{R}^n and their Preservation of Non-Degeneracy

Hörsaal K

MS#19:
10:30-11:00 SAUER,
Prony's method in several variables
11:00-11:30 PŁONKA,
Deterministic sparse FFT
11:30-12:00 FORSTER,
Sampling theory revisited: generalized Bernstein spaces and the way back to the real line
12:00-12:30 MASSOPUST,
Fractional cone and hex splines

Hörsaal M

MS#16:
10:30-11:00 BEISEGEL, VATER,
Adaptive Simulation of Flooding and Drying Events with Discontinuous Galerkin Schemes
11:00-11:30 NEUWEILER, RAMIREZ,
Simulation of hydraulic fracturing using XFEM
11:30-12:00 HORENKO,
Causality or correlation? Multiscale inference and applications to geoscience
12:00-12:30 HILLER, HARRIG, FUCHS, RAKOWSKY,
An efficient parallel solver for sparse linear equation systems arising in non-hydrostatic tsunami simulations

MS#16:
14:30-15:00 LUCARINI,
Developing parametrizations for multiscale systems using non equilibrium statistical mechanics

10:00 - 10:30 Coffee Break

12:30 - 14:00 Lunch Break

12:30 - 14:00 Coffee Break

MS#33:
14:00-14:30 JURCZAK,
Spectral analysis of high-dimensional sample covariance matrices with missing observations
14:30-15:00 LEDRER,
How to calibrate tuning parameters

MS#3:
14:00-14:30 WROCHNA,
The classical phase space in the BRST formalism on curved spacetimes
14:30-15:00 DAPPIAGGI,
Constructing Isometry Invariant Hadamard States via a Novel Deformation Argument

MS#8:
14:00-14:30 KRONBICHLER,
Hybridizable discontinuous Galerkin methods for incompressible flow
14:30-15:00 SCHÜTZ,
Efficient time integration for the HDG method

MS#25:
14:00-14:30 HÜLS,
A contour algorithm for computing stable fiber bundles of nonautonomous, noninvertible maps
14:30-15:00 RATSCHAN,
Computing Barriers of Ordinary Differential Equations

15:15 - 16:15 VOGTMANN
Cycles in moduli spaces of graphs

16:15 - 17:15 SPOHN
Interacting diffusions in the Kardar-Parisi-Zhang universality class

17:15 - 17:45 Closing

W120

MS#24:
 10:30-11:00 PANIN,
 Quadratic spaces and algebraic cobordisms
 11:00-11:30 ANANYEVSKIY,
 Operations in derived Witt theory
 11:30-12:00 RÖNDIGS,
 Algebraic K-theory of motivic spaces

W121

MS#5:
 10:30-11:00 BEHREND, SINGH,
 Multi-threaded Singular
 11:00-11:30 GUTSCHE, POS-
 UR,
 Categories, algorithms, and programming
 11:30-12:00 ROTTNER,
 Algorithmic Computation of Direct Images of D -Modules
 12:00-12:30 DIEM,
 Ein Zufallszahlengenerator auf Basis elliptischer Kurven

W122

MS#38:
 10:30-11:00 POUZET,
 Well quasi ordering and enumeration of finite relational structures
 11:00-11:30 NEŠETŘIL,
 WQO of Classes of Graphs
 11:30-12:00 FOUCHÉ,
 Constructive topology in Ramsey theory and well quasi-orderings via Gelfand duality
 12:00-12:30 BENINI,
 Well quasi-orders in a categorical setting

W220

MS#29:
 10:30-11:00 WINKLER,
 Mathematical challenges arising in the analysis of chemotaxis-fluid interaction
 11:00-11:30 RADEMAGHER,
 Dynamics of a fluid model for tokamak plasma
 11:30-12:00 LUPPOTH,
 Variational modeling and analysis of a Stokes - Osmosis problem
 12:00-12:30 SCHLÖMERKE-M-PER,
 Flow of micromagnetic complex fluids

W221

MS#14:
 10:30-11:00 AWODEY,
 On the cubical model of HoTT
 11:00-11:30 HUBER,
 A Cubical Type Theory
 11:30-12:00 ALTENKIRCH,
 The coherence problem in HoTT
 12:00-12:30 MÖGELBERG,
 Towards guarded recursion in HoTT

W222

MS#23:
 10:30-11:20 VALLENTIN,
 New upper bounds for the density of translative packings of spheres
 11:25-11:55 KOUNCHEV,
 Multidimensional moment problem on the sphere and application to curvature formulas on the sphere
 12:00-12:30 BURGDOFF,
 The operator theoretic moment problem

W223

MS#11:
 10:30-11:00 HENROT,
 Some new inequalities for elasticities in BV
 11:00-11:30 FERONE,
 On the minimizers of trace inequalities in BV
 11:30-12:00 NITSCH,
 The Neumann eigenvalue problem for the ∞ -Laplacian
 12:00-12:30 SALANI,
 Power concavity in weakly coupled elliptic and parabolic systems

12:30 - 14:00 Lunch Break

MS#24:

14:00-14:30 SPITZWECK,
 Integral Tate Motives and Fundamental Groups

MS#5:

14:00-14:30 NIEMEYER,
 Maximally symmetric p -groups
 14:30-15:00 HORN,
 F -Überlagerungen von endlichen auflösbaren Gruppen

MS#38:

14:00-14:30 GOUBAULT-LARRECQ,
 The VajzL Lemma
 14:30-15:00 SELIVANOV,
 Well quasi-orders and descriptive set theory

MS#29:

14:00-14:30 WAHLÉN,
 Three-Dimensional Solitary Water Waves with Weak Surface Tension
 14:30-15:00 MATIOC,
 On the parabolicity of the Muskat problem

MS#14:

14:00-14:30 V. GLEHN,
 Models of homotopy type theory
 14:30-15:00 LUMSDAINE,
 Formalising the categorical semantics of type theory, in type theory

MS#23:

14:00-14:50 ALBEVERIO,
 Some moment problems in one to infinite dimensions

MS#11:

14:00-14:30 SWEBERS,
 On a conjecture for the 3G-function
 14:30-15:00 KAWOHL,
 The longest shortest fence and the stability of floating trees

O232

MS#7:
 10:30-11:05 ELSCHENBREICH,
 Aspekte dynamischer Visualisierungen im Mathematikunterricht
 11:10-11:45 HAFTENDORN,
 Dynamik bringt die Mathematiklehre voran
 11:50-12:25 GAWLICK,
 Lösungsgraph und Zweispaltenbeweis als Hilfsmittel der Beweisfindung und -darstellung

O222

MS#9:
 10:30-11:00 HERRMANN,
 Asymptotic wave patterns in Hamiltonian lattices
 11:00-11:30 MELCHER,
 Dynamics of topological defects in magnetism
 11:30-12:00 ROTTMANN-MATTHES,
 Using symmetries for numerical long-time simulations and approximation of similarity solutions
 12:00-12:30 SCHNEIDER,
 Dynamics at the Eckhaus boundary

O122

MS#30:
 10:30-11:00 DRMOTA,
 Random Sub-Critical Graph Classes
 11:00-11:30 FOUNTOLAKIS,
 A phase transition on the evolution of bootstrap percolation processes on preferential attachment graphs
 11:30-12:00 STUFLER,
 Scaling limits of unlabelled trees

12:20 - 14:20 Lunch Break

MS#7:

14:00-14:15 MÜLLER-HILL,
 Perspektivenübergreifendes Statement zu den Vorträgen
 14:15-15:00
 Discussion

MS#9:

14:00-14:30 UECKER,
 Optimal harvesting and other spatial patterns in distributed optimal control problems
 14:30-15:00 WINKLER,
 Transient growth phenomenon in a parabolic-elliptic chemotaxis system

MS#30:

14:00-14:30 SKORIC,
 Almost-spanning universality in random graphs
 14:30-15:00 WARNEKE,
 On the method of typical bounded differences

Programm Schedule

Monday, 21 September 2015	Tuesday, 22 September 2015	Wednesday, 23 September 2015	Thursday, 24 September 2015	Friday, 25 September 2015
9.00-10.00	Michael Eichmair <i>Minimal surfaces, isoperimetry, and non-negative scalar curvature in asymptotically flat manifolds</i> Hörsaal A Coffee Break	Kathrin Bringmann <i>Meromorphic Maass forms</i> Hörsaal A Coffee Break	Charles M. Elliott <i>PDEs on evolving domains</i> Hörsaal A Coffee Break	Jørgen Ellegaard Andersen <i>Topological quantum field theory in low dimensional topology</i> Hörsaal A Coffee Break
10.00-10.30	Minisymposia 1: #1, #2, #4, #15, #17, #18, #20, #27, #32, #35, #36, #37, #39.	Minisymposia 3: #2, #4, #6, #12, #15, #17, #20, #21, #22, #26, #27, #31, #32, #34, #35, #36, #37.	Minisymposia 5: #3, #5, #6, #10, #12, #14, #16, #19, #22, #23, #24, #25, #26, #28, #31, #37, #38.	Minisymposia 7: #3, #5, #7, #8, #9, #11, #14, #16, #19, #23, #24, #25, #29, #30, #33, #38.
10.30-12.30				
12.30-14.00	Lunch Break	Lunch Break	Mitagsseminar <i>Mathematik in Industrie und Gesellschaft</i>	Lunch Break
14.00-15.00	Minisymposia 2: #1, #2, #4, #13, #15, #17, #18, #20, #21, #27, #32, #35, #36.	Minisymposia 4: #2, #4, #10, #15, #17, #18, #20, #21, #22, #26, #27, #32, #34, #35, #36.	Coffee Break	Minisymposia 8: #3, #5, #7, #8, #9, #11, #14, #16, #23, #24, #25, #29, #30, #33, #38.
15.00-15.15	Coffee Break	Coffee Break	Coffee Break	Coffee Break
15.15-16.00				Karen Vogtmann <i>Cycles in moduli spaces of graphs</i> Hörsaal A
16.00-16.15				Herbert Spohn <i>Interacting diffusions in the Kardar-Parisi-Zhang universality class</i> Hörsaal A
16.15-17.00	Opening Hörsaal A	Sections	Sections	
17.00-17.15	Alessandra Carbone <i>One-dimensional and three-dimensional protein spaces and protein evolution</i> Hörsaal A			
17.15-17.45				
17.45-18.00		Björn Sandstede <i>Turing patterns: past and present</i> Hörsaal A Coffee Break	Simon Thomas <i>A descriptive view of infinite dimensional unitary representations</i> Hörsaal A Coffee Break	
18.00-18.45				
18.45-19.15				
19.15-19.30		Reception (funded by Springer-Verlag)		
19.30-21.00	Senatempfang Rathaus der Freien und Hansestadt Hamburg	Öffentliche Podiumsdiskussion (gemeinsam mit der Akademie der Wissenschaften in Hamburg) Hörsaal A	Conference Dinner Mozartsäle	Mitgliederversammlung der DMV Hörsaal M