

FACULTY OF MATHEMATICS AND NATURAL SCIENCES
MATHEMATICS - DISCRETE MATHEMATICS - COMPUTER SCIENCE

LECTURE TIME TABLE / WINTER TERM 2003/04

Lecture period : 13 October 2003 — 6 February 2004

Christmas holidays : 22 December 2003 — 2 January 2004

MATHEMATICS

Abbreviations :

Gr.HS Math.:	Lecture Hall (Großer Hörsaal) Mathematics, Room 241, Wegelerstr. 10
Kl.HS Math.:	Lecture Hall (Kleiner Hörsaal) Mathematics, Room 242, Wegelerstr. 10
ZS:	Lecture Room (Zeichensaal), Room 244, Wegelerstr. 10
HS We8:	Lecture Hall Applied Physics, Room 106, Wegelerstraße 8
WP HS	Lecture Hall Wolfgang-Paul-Hörsaal, Lecture Hall building Physics, Kreuzbergweg
AudiMax	Auditorium Maximum of the Computer Science, Römerstr. 164
Gr.HS Botanik:	Lecture Hall Botanic, Nußallee 4
HS Zoologie:	Lecture Hall Zoology, Poppelsdorfer Schloß
HS Pharmacy:	Lecture Hall Pharmacy, Kreuzbergweg 26
SR We6/501:	Room 501, Wegelerstr. 6
SR We6/610:	Room 610, Wegelerstr. 6
SR We10/251:	Room 251, Wegelerstr. 10
SR A:	Room 11, Beringstr. 4
SR B:	Room 37, Beringstr. 4
SR C:	Room 3, Beringstr. 1
SR D:	Room 13, Meckenheimer Allee 160, acces only via Beringstr. 1
SR E:	Room 3, Meckenheimer Allee 160, acces only via Beringstr. 1
SR F:	Room 2, Meckenheimer Allee 160, acces only via Beringstr. 1
SR G:	Room 627, Lecture Hall Building Physics, Kreuzbergweg 28
HS G, F:	Lecture Halls Nassestr. 2
HS 1, A, ..., D:	Lecture Halls Römerstraße 164

Room A*,N*: Seminar Rooms Römerstraße 164
MPI: Lecture Hall MPI for Mathematics, Vivatsgasse 7
u.M.: and staff
n.V.: Time or place by appointment in lecture, seminar ect.

Activities before and after term time

The programming languages C/C++ 9. Februar 2004 – 20. Februar 2004, 3 hrs, Mo-Fr, 9-12, Gr.HS Math.	K.W. Jacobs
Exercises thereto (in groups) 9. Februar 2004 – 20. Februar 2004 3 hrs, n.V.	K.W. Jacobs
Presentation course Mathematics for beginning students 25.8.2003-5.9.2003, 4 hrs, Mo-Fr daily, WP HS, 11-13, lecture part, 14-16 exercise part	W. Pollul

Basic Studies: Courses

Analysis I (for Diploma mathematicians obligatory, for Diploma Physics recommended) 4 hrs, Mo, Thu 8-10, WP HS	K.T. Sturm
Exercises thereto 4 hrs, n.V.	K.T. Sturm, A. Hahn
Linear Algebra I (for Diploma mathematicians obligatory, for Diploma Physics recommended) 4 hrs, Tu 8-10, Fr 10-12, WP HS	N.N.
Exercises thereto 4 hrs, n.V.	N.N. u.M.
Mathematics for Diploma Computer Science IA (Linear Algebra) 4 hrs, Tu, Thu 9-11, HS D	P. Koepke
Exercises thereto 2 hrs, n.V.	P. Koepke, B. Irrgang
Mathematics for Diploma Computer Science IB (Analysis) 2 hrs, Mo 14-16, HS D	J. Franke
Exercises thereto 2 hrs, n.V.	J. Franke u.M.
Analysis III 4 hrs, We, Fr 8-10, Gr.HS Math.	H. Karcher
Exercises thereto 2 hrs, n.V.	H. Karcher u.M.
Numerical Analysis I 4 hrs, Tu, Thu 10-12, Gr.HS Math.	H. Arndt
Exercises thereto 2 hrs, in groups, n.V.	H. Arndt u.M.

Basic Studies: Seminars

Proseminar Analysis for third semester 2 hrs, n.V.	H. Karcher
Proseminar Discrete Optimization Time and place by appointment in proseminar, Lennéstr. 2	B. Korte, D. Rautenbach, J. Vygen
Wavelets and compression in image processing 2 hrs, n.V.	K. Scherer, A. Weber
Proseminar cryptography 2 hrs, Thu 14-16, SR D	Th. Wörmann

Basic Studies: Practica

Practical training for the basic study 4 hrs, n.V., Lennéstr. 2	B. Korte, D. Rautenbach, J. Vygen
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Courses for other Faculties

Mathematics in the biology I 2 hrs, Mo 11-13, HS Zoology	G. Grün
Exercises thereto 2 hrs, Mo-Thu 14-16 or 16-18 HS Zoology	G. Grün
Additional Exercises to Mathematics in the biology 1 hrs, Fr 11-12, HS Zoology	G. Grün
Mathematics and statistical methods for Pharmacists 2 hrs, Mo 8-10, HS Pharm. Inst. Pop. for Sccond- and Thirdsemester	K.W. Jacobs
Mathematics for Natural-Scientists I 3 hrs, We 14-16, Thu 17-18, SR G	K. Leschinger
Additional completions thereto 2 hrs, Fr 14-16, SR G	K. Leschinger
Exercises thereto 2 hrs, n.V.	K. Leschinger

Upper Level Studies for Teacher's Training: Courses

Numerical Analysis I 4 hrs, Tu, Thu 10-12, Gr.HS Math.	H. Arndt
Exercises thereto 2 hrs, n.V.	H. Arndt u.M.
Probability I 4 hrs, Mo, We 10-12, Gr.HS Math.	A. Eberle
Exercises thereto 2 hrs, n.V.	A. Eberle
Examination course for students for teacher's training 4 hrs, n.V.	J. Frehse
Euclidean Geometry 2 hrs, Mo 16-18, SR C	P. Klein
Exercises thereto 1 hrs, Mo 18-19, SR C	P. Klein
Topology I 4 hrs, We, Fr 8-10. Kl.HS Math.	N.N.
Exercises thereto 2 hrs, n.V.	N.N.
Basic knowledge of modern mathematics in the 19th and beginning 20th century 2 hrs, We 14-16, SR B	W. Purkert
Lie groups and Lie algebras II 4 hrs, Mo 10-12, We 12-14, SR C	G. Schmalz
Elementary Number Theory II 2 hrs, Mo 10-12, Kl.HS Math.	A. Wynands
Exercises thereto 2 hrs, Mo 12-14, Kl.HS Math.	A. Wynands

Upper Level Studies for Teacher's Training: Seminars

Topics in Nonlinear Functional Analysis 2 hrs, n.V.	H. Arndt
Seminar Set Theory 2 hrs, Tu 14-16, SR A	P. Koepke

Upper Level Studies for Teacher's Training: Courses on Didactics

Lecture on didactics in mathematics 2 hrs, Tu 14-16, SR B	P. Bungartz
Didactic of Analysis (Part II: special part) 2 hrs, We 16-18, SR C	P. Klein
Exercises thereto 1 hrs, 18-19, SR C	P. Klein

Upper Level Studies for Teacher's Training: Seminars on Didactics

Seminar about Didactic and history of mathematics 2 hrs, Thu 14-16, SR B	P. Bungartz, W. Purkert
Didactic seminar on analysis 2 hrs, Tu 10-12, SR C	A. Wynands

Upper Level Studies for Teacher's Training: Practical Studies

Practical studies for the school 3 hrs, n.V.	P. Bungartz, M. Hoerstke
Practical studies for the school 3 hrs, n.V.	A. Wynands, J. Huber

Upper Level Studies for Teacher's Training: Colloquia

Didactics colloquia Mathematics - Natural Sciences 2 hrs, Mo, 17-19, Kl.HS Math., n.V.	P. Bungartz, A. Wynands
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Diploma Level Studies: Lectures

Statistics and Stochastics of financial Markets 4 hrs, Tu, Thu 12-14 SR We6/501	S. Albeverio
Exercises thereto 2 hrs, n.V.	S. Albeverio u.M.
Numeric of Partial Differential Equations I 4 hrs, Tu, Thu 12-14, Gr.HS Math.	H.W. Alt
Exercises thereto 2 hrs, n.V.	H.W. Alt u.M.
Partial Differential Equations III 4 hrs, We, Fr 10-12, SR We6/610	H.W. Alt
Topology III 4 hrs, We, Fr 8-10, SR E	C.-F. Bödiger
Dynamic Optimization 2 hrs, We 14-16, Room 055/Juridicum	N. Christopeit
Solitons II 2 hrs, Thu 14-16, SR F	C. Devchand
Probability I 4 hrs, Mo, We 10-12, Gr.HS Math.	A. Eberle

Exercises thereto 2 hrs, n.V.	A. Eberle u.M.
Number Theory III 4 hrs, n.V.	J. Franke
Boundary value problems for Partial Differential Equations 4 hrs, Mo, Fr 10-12, SR A	J. Frehse
Scientific Computing III 4 hrs, Tu, Thu 10-12, Kl.HS	M. Griebel
Seminar going with it 2 hrs, n.V.	M. Griebel u.M.
Pseudodifferential Operators and Applications in Geometry and Analysis 4 hrs, We, Fr 10-12, SR D	D. Grieser
Curves singularities 2 hrs, Mo 14-16, SR B	C. Hertling
Mathematical models for the description of road traffic 2 hrs, Tu 14-16, SR We6/501	V. Jentsch
Selected Topics from Combinatorial Optimization Tu 12-14, Gerhard-Konow-Lecture Hall, Lennéstr. 2	B. Korte
Algebra II 4 hrs, Tu, Thu 8-10, Kl.HS Math.	I. Lieb
Selected Topics from the complex analysis 2 hrs, We 10-12, SR B	I. Lieb
Number theory V 4 hrs, Mo 14-16, Thu 16-18, SR F	B.Z. Moroz
Spectral theory and automorphic forms 4 hrs, Tu, Thu 10-12, ZS	W. Müller
Topology I 4 hrs, We, Fr 8-10, Kl.HS Math.	N.N.
Exercises thereto 2 hrs, n.V.	N.N.
Numerics of ordinary Differential Equations I 4 hrs, Tu, Thu 8-10, ZS	N.N.
Exercises thereto 2 hrs, n.V.	N.N.
Patial Differential Equations I 4 hrs, We, Fr 8-10, ZS	F. Otto
Exercises thereto 2 hrs, n.V.	F. Otto u.M.
Mathematical Optimization I Tu, Fr 14-16, Gerhard-Konow-Lecture Hall, Lennéstr. 2	D. Rautenbach
Exercises to Mathematical Optimization I Fr 12-14, Gerhard-Konow-Lecture Hall, Lennéstr. 2	D. Rautenbach, J. Maßberg
Stochastical Analysis 4 hrs, We, Fr 12-14, ZS	M. Schäl
Exercises thereto 2 hrs, n.V.	M. Schäl

Geometric Measure Theory II 4 hrs, Tu, Thu 10-12, SR A	R. Schätzle
Exercises thereto 2 hrs, Tu or We 14-16, SR C	R Schätzle u.M.
Functional Analysis I 4 hrs, We, Fr 10-12, ZS	K. Scherer
Exercises therto 2 hrs, n.V.	K. Scherer
Lie Groups and Lie Algebras 4 hrs, Mo 10-12, We12-14, SR C	G. Schmalz
Differential Geometry III 4 hrs, We, Fr 10-12, SR F	D. Schüth
Geometric Analysis 4 hrs, Tu, Thu 8-10, SR A	H. von der Mosel
Discrete Mathematics I Tu, Thu 16-18, Gerhard-Konow-Hörsaal, Lennéstr. 2	J. Vygen
Exercises for Discrete Mathematics I Thu 14-16, Gerhard-Konow-Hörsaal, Lennéstr. 2	J. Vygen, D. Müller

Diploma Level Studies: Seminars

Seminar on Financial Engineering (joint with the Project group Financial Engineering at Stiftung caesar) 2 hrs, Thu 14-16, SR We6/501	S. Albeverio, M. Schäl
Topics in Nonlinear Functional Analysis 2 hrs, n.V.	H. Arndt
Seminar on Topology 2 hrs, Tu 14-16, SR E	C.-F. Bödigheimer, B. Richter
Seminar Stochastic Analysis 2 hrs, n.V.	A. Eberle
Seminar on Algebra 2 hrs, n.V.	J. Franke
Seminar Applied Analysis 2 hrs, n.V.	J. Frehse
Numerical solution of Schroedingers equation 2 hrs, n.V.	M. Griebel
Compact course: Scientific Computing and Numerical Simulation 3 days, n.V.	M. Griebel,
Seminar on Applied Analysis 2 hrs, n.V.	G. Grün
Seminar on Automorphic Forms 2 hrs, Tu 17-19, SR A	G. Harder
Seminar on Number Theory 2 hrs, Tu 10-12 SR E	G. Harder

Seminar Set Theory 2 hrs, Tu 14-16, SR A	P. Koepke
Seminar Discrete Optimization Time and place by appointment in seminar, Lennéstr. 2	B. Korte, D. Rautenbach, J. Vygen
Seminar on Algebra, Geometry and Physics 2 hrs, Tu 14 Uhr s.t., HS MPI	Y. Manin
Seminar Global Analysis I 2 hrs, Tu 14-16, SR D	W. Müller
Seminar Partial Differential Equations I 2 hrs, n.V.	F. Otto
Seminar on Stochastic Analysis 2 hrs, n.V.	M. Schäl
Seminar Analysis 2 hrs, We 10-12, SR A	R. Schätzle
Seminar on: Linear versus Nonlinear Approximation 2 hrs, n.V.	K. Scherer
Seminar on Differential Geometry 2 hrs, n.V.	D. Schüth
Seminar on Large Deviations 2 hrs, Mo 14-16, SR We6/501	K.-T. Sturm
Seminar Geometric Analysis 2 hrs, n.V.	H. von der Mosel

Upper Level Studies: Special Seminars

Postgraduate Seminar on Stochastic 3 hrs, Thu 16-19, SR We6/501	S. Albeverio, A. Eberle, M. Schäl, K.-T. Sturm
Postgraduate Seminar on Mathematical Physics 2 hrs, Fr 10-12, SR We6/501	S. Albeverio, H. Gottschalk
Diploma and Phd Seminar 2 hrs, n.V.	S. Albeverio
Diploma Seminar 2 hrs, n.V.	H.W. Alt
MPI-Postgraduate Seminar Topology 1 hrs, Mo 15-16, Lecture Hall MPI	H.J. Baues
Postgraduate Seminar Topology 2 hrs, Tu 18-20, SR E	C.-F. Bödigheimer, B. Richter, N.N.
Diploma and Phd Seminar 2 hrs, n.V.	A. Eberle
MPI-Postgraduate Seminar, continuous 1 hrs, on Thursday at 3pm s.t., auditorium MPI	G. Faltings, G. Harder, Y. Manin, D. Zagier

Diploma Seminar 2 hrs, n.V.	J. Franke
Postgraduate Seminar Selected topics on Scientific Computing 2 hrs, n.V.	M. Griebel
Postgraduate Seminar Differential Geometry 2 hrs, Thu 16-18, SR D	H. Karcher, D. Schüth
Postgraduate Seminar Randomized and Approximative Algorithms (RAND) 3 hrs, Mo 11-12, Fr14-16, SR N327	M. Karpinski
Diploma Seminar 2 hrs, Thu 14-16, SR A	P. Koepke
Postgraduate Seminar Mathematical Logic 2 hrs, Thu 16-18.30, SR A	P. Koepke
Diploma and Phd Seminar We 12-14, conference-room	B. Korte, D. Rautenbach, J. Vygen
Postgraduate Seminar Discrete Optimization Mo 17-19, Seminarroom, Lennéstr. 2 (Participation by appointment only)	B. Korte, D. Rautenbach, J. Vygen
AG Complex Analysis (Bonn/MPI/Wuppertal) 4 hrs, fortnightly, Mo 14-18, MPI	I. Lieb, K. Diederich, T. Hefer, G. Schmalz W. Müller
Diploma Seminar 2 hrs, Thu 14-16, SR C	
Diploma Seminar 2 hrs, n.V.	F. Otto
Diploma Seminar 2 hrs, n.V.	M. Schäl
AG Geometric Analysis 2 hrs, We 13-15, SR A	R. Schätzle u.a.
Diplomana and Phd Seminar 2 hrs, Mo 14-16, SR We6/501	K.T. Sturm

Diploma Level Studies: Practical Studies

Computational Fluid Dynamcis 6 hrs, We 12-14 und 4 hrs n.V.	M. Griebel
Practical training for Diploma Level Studies 4 hrs, by appointment, Lennéstr. 2	B. Korte, D. Rautenbach, J. Vygen

Bonner International Graduate School
in Mathematics, Physics and Astronomie
Graduate Studies: Lectures

Statistics and Stochastics of financial Markets 4 hrs, Tu, Thu 12-14 SR We6/501	S. Albeverio
Exercises thereto 2 hrs, n.V.	S. Albeverio u.M.
Topology III 4 hrs, We, Fr 8-10, SR E	C.-F. Bödigheimer
Solitons II 2 hrs, Thu 14-16, SR F	C. Devchand
Probability I 4 hrs, Mo, We 10-12, Gr.HS Math.	A. Eberle
Exercises thereto 2 hrs, n.V.	A. Eberle u.M.
Arithmetic Geometry 4 hrs, We 10-12, Fr 14-16, SR E	G. Faltings
Boundary value problems for partial differential equations 4 hrs, Mo, Fr 10-12, SR A	J. Frehse
Higher order degenerate parabolic equations: Theory and applications 2 hrs, n.V.	L. Giacomelli
Scientific Computing III 4 hrs, Tu, Thu 10-12, Kl.HS	M. Griebel
Seminar going with it 2 hrs, n.V.	M. Griebel u.M.
Pseudodifferential Operators and Applications in Geometry and Analysis 4 hrs, We, Fr 10-12, SR D	D. Grieser
A mathematical introduction to the renormalization group 2 hrs, Thu 14.15-16.00, SR We6/501	H. Gottschalk
Curves singularities 2 hrs, Mo 14-16, SR B	C. Hertling
Mathematical models for the description of road traffic 2 hrs, Tu 14-16, SR We6/501	V. Jentsch
Selected Topics from the complex analysis 2 hrs, We 10-12, SR B	I. Lieb
Number theory V 4 hrs, Mo 14-16, Thu 16-18, SR F	B.Z. Moroz
Spectral theory and automorphic forms 4 hrs, Tu, Thu 10-12, ZS	W. Müller
Stochastical Analysis 4 hrs, We, Fr 12-14, ZS	M. Schäl

Exercises thereto 2 hrs, n.V.	M. Schäl
Geometric Measure Theory II 4 hrs, Tu, Thu 10-12, SR A	R. Schätzle
Exercises thereto 2 hrs, Tu or We 14-16, SR C	R Schätzle u.M.
Lie groups and Lie algebras 4 hrs, Mo 10-12, We12-14, SR C	G. Schmalz
Differential Geometry III 4 hrs, We, Fr 10-12, SR F	D. Schüth
Geometric Analysis 4 hrs, Tu, Thu 8-10, SR A	H. von der Mosel

**Bonner International Graduate School
in Mathematics, Physics and Astronomie
Graduate Studies: Seminars**

Postgraduate Seminar on Stochastic 3 hrs, Thu 16-19, SR We6/501	S. Albeverio, A. Eberle, M. Schäl, K.-T. Sturm
Postgraduate Seminar on Mathematical Physics 2 hrs, Fr 10-12, SR We6/501	S. Albeverio, H. Gottschalk
Diploma and Phd Seminar 2 hrs, n.V.	S. Albeverio
MPI-Postgraduate Seminar Topology 1 hrs, Mo 15-16, Lecture Hall MPI	H.J. Baues
BIGS/IMPRS-Seminar 2 hrs, Mo 10-12, Hausdorff-Raum	C.-F. Bödigheimer, Ch. Kaiser
Postgraduate Seminar Topology 2 hrs, Tu 18-20, SR E	C.-F. Bödigheimer, B. Richter, N.N.
Working seminar: Homotopy theory (Bonn-Wuppertal-Düsseldorf) 3 hrs, Thu 15-18, 14-daily, SR E	C.-F. Bödigheimer, K. Knapp, N.N., E. Ossa, B. Richter, W. Singhof
Seminar Stochastic Analysis 2 hrs, n.V.	A. Eberle
Diploma and Phd Seminar 2 hrs, n.V.	A. Eberle
MPI-Postgraduate Seminar, continuous 1 hrs, on Thursday at 3pm s.t., auditorium MPI	G. Faltings, G. Harder, Y. Manin, D. Zagier

Selected topics on Scientific Computing 2 hrs, n.V.	M. Griebel
Postgraduate Seminar Differential Geometry 2 hrs, Thu 16-18, SR D	H. Karcher, D. Schüth
Postgraduate Seminar Randomized and Approximative Algorithms (RAND) 3 hrs, Mo 11-12, Fr14-16, SR N327	M. Karpinski
Phd-Seminar 2 hrs, n.V.	M. Karpinski
Diploma Seminar 2 hrs, Thu 14-16, SR A	P. Koepke
Postgraduate Seminar Mathematical Logic 2 hrs, Thu 16-18.30, SR A	P. Koepke
AG Complex Analysis (Bonn/MPI/Wuppertal) 4 hrs, 14-daily, Mo 14-18, MPI	I. Lieb, K. Diederich, T. Hefer, G. Schmalz Y. Manin
Seminar on Algebra, Geometry and Physics 2 hrs, Tu 14 Uhr s.t., HS MPI	
Seminar Global Analysis I 2 hrs, Tu 14-16, SR D	W. Müller
Seminar Analysis 2 hrs, We 10-12, SR A	R. Schätzle
AG Geometric Analysis 2 hrs, We 13-15, SR A	R. Schätzle u.a.
Seminar on Differential Geometry 2 hrs, n.V.	D. Schüth
Seminar on Large Deviations 2 hrs, Mo 14-16, SR We6/501	K.-T. Sturm
Diploma and Phd Seminar 2 hrs, Mo 14-16, SR We6/501	K.T. Sturm
Seminar Geometric Analysis 2 hrs, n.V.	H. von der Mosel

Colloquia

Didactics colloquia 2 hrs, Mo 17-19, 14-daily, Kl.HS Math. (after announcement)	P. Bungartz, A. Wynands
Colloquia of the Bonner International Graduate School BIGS/IMPRS 1 hrs, Fr 15:30-16:30, Kl.HS Math.	Die Dozenten der Ma- thematik
Colloquia in Applied Mathematics 1 hrs, Tu 16, SR 610 (nur nach vorheriger Ankündigung)	Die Dozenten der Angewandten Mathematik

Mathematics Colloquia
1 st, Fr 17-18, Kl. HS

Die Dozenten der
Mathematik

DISCRETE MATHEMATICS

All Lectures take place in the Forschungsinstitut für Discrete Mathematics,
Lennéstr. 2 statt.

Lectures

Discrete Mathematics I Tu, Thu 16-18, Gerhard-Konow-Hörsaal	J. Vygen
Exercises for Discrete Mathematics I Thu 14-16, Gerhard-Konow-Hörsaal	J. Vygen, D. Müller
Mathematical Optimization I Tu, Fr 14-16, Gerhard-Konow-Lecture Hall	D. Rautenbach
Exercises to Mathematical Optimization I Fr 12-14, Gerhard-Konow-Lecture Hall	D. Rautenbach, J. Maßberg
Selected Topics from the Combinatorial Optimization Tu 12-14, Gerhard-Konow-Lecture Hall	B. Korte

Seminars and Practical Training

Proseminar Discrete Optimization Time and place by appointment in seminar	B. Korte, D. Rautenbach, J. Vygen
Seminar Discrete Optimization Time and place by appointment in seminar	B. Korte, D. Rautenbach, J. Vygen
Diploma and Phd Seminar We 12-14, conference-room	B. Korte, D. Rautenbach, J. Vygen
Postgraduate Seminar Discrete Optimization Mo 17-19, Seminarroom, Lennéstr. 2 (Participation by appointment only)	B. Korte, D. Rautenbach, J. Vygen
Practical training for the basic study 4 hrs, n.V., Lennéstr. 2	B. Korte, D. Rautenbach, J. Vygen
Practical training for Diploma Level Studies 4hrs, by appointment, Lennéstr. 2	B. Korte, D. Rautenbach, J. Vygen