Mo 21.09.		**Welcome to CO@Work**
08:30-09:00		Registration
09:00-10:30	MG	Welcome
11:00-12:30	MG	Linear and integer programming: an introduction
14:00-15:30	MG	Basics of polyhedral theory, flows and networks
16:00-17:30	MG	The Travelling Salesman Problem and its applications
Tu 22.09.		**Introduction to the ZIB Optimization Suite**
09:00-10:30	CR,AW	Porta and Polymake
11:00-12:30	IPG	Basic concepts of SCIP
14:00-15:30	IPG	The ZIB Optimization suite: SCIP, Soplex, Zimpl
16:00-16:30	IPG	Real world data
16:30-17:30	IPG	Refreshing C for SCIP programmers
We 23.09.		**Theory of combinatorial auctions and auction practice**
09:00-10:00	MG	Introduction to different types of auctions
11:00-12:30	RB	Theory of combinatorial auctions
14:00-15:00	MG,TK,DH	Combinatorial auctioning of transportation contracts
15:15-18:00	RB	Resource constraint shortest paths
Th 24.09.		**Advanced Linear Programming**
09:00-10:30	BB	Solving LPs in practice
11:00-12:30	BB	
14:00-15:30	BB	
16:00-17:30	BB	
Fr 25.09.		**Advanced Mixed Integer Programming**
09:00-10:30	BB	Solving MIPs in practice
11:00-12:30	BB	
14:00-15:30	BB	
16:00-17:30	BB	
Sa 26.09.		**Programming in SCIP I**
09:00-10:30	IPG	Variable selection, branching rules, and constraint handlers
11:00-12:30	IPG	Exercise: How to implement constraint handlers I
14:00-15:30	IPG	Exercise: How to implement constraint handlers II
16:00-20:00		Museumsinsel
20:00-21:00		Deponie No.3, Georgenstr. 5, 10117
So 27.09.		*No scientific program*
Mo 28.09.		**Australia Day**
09:00-11:00	CB,YB	Telecommunication transmission radius in wireless ad-hoc networks
11:30-12:30	CB,YB	Equipment selection for surface mines I
14:00-15:00	CB,YB	Equipment selection for surface mines II
15:00-17:30	AB,AG	Open pit mining production planning
17:45-18:15	BB	Starting a Company I
Tu 29.09.		**(Commercial) Solvers: state-of-the-art**
09:00-09:15	HM	Introduction
09:15-10:00	BB	Gurobi
10:15-11:00	TA	CPLEX
11:15-12:00	OB	Xpress
12:00-12:45	EA	MOSEK and Interior Point
14:15-15:00	TR	COIN-OR
15:30-16:15	EA	Conic Quadratic Optimization
16:30-17:30	MH	Integer Programming at Siemens

We 30.09.		**Programming in SCIP II**
09:00-10:30	IPG	Cuts and heuristics
11:00-12:30	IPG	Exercise: How to implement primal heuristics
14:00-17:30	IPG,TS,RB	Exercise: How to implement column generation procedures
Th 01.10.		**Logistics**
09:00-10:30	MG	Mathematical aspects of logistics
11:00-12:30	BH	Online optimization, elevator and service vehicle scheduling
14:00-15:30	AF	Optimization of school starting times and bus transport
16:00-17:30	BH,AF	Data preprocessing
Fr 02.10.		**Public Transportation I**
09:00-10:30	RB	Duty Scheduling
11:30-12:30	PTG	Exercises
14:00-15:30	MN	Line Planning
16:00-17:30	PTG	Exercises
Sa 03.10.		**Public Transportion II**
09:00-10:30	RB	Vehicle Scheduling
11:00-12:30	TS	Track allocation
14:00-15:30	PTG	Exercises
So 04.10.		*No scientific program*
Mo 05.10.		**Telecommunication**
09:00-10:30	MG	Combinatorial optimization in telecommunications
11:00-12:30	AB,MM,CR	Planning and optimizing large scale networks
14:00-15:30	AB,MM,CR	Exercises
16:00-17:30	AE	Radio network planning an optimization
17:45-18:15	TUGS	Starting a Company II
Tu 06.10.		**Excursion to a company**
	Berlin	*Siemens turbine production*
10:00-13:00		Visit of plant and discussion
13:00-14:00		Lunch
14:30-18:00		Visit of Technikmuseum
	Berlin	*Bayer Schering*
10:00-14:00		Visit of plant and discussion
13:00-14:00		Lunch
14:00-15:00		Going to Potsdam
15:00-17:00		Visit of ViP (Verkehrsbetriebe in Potsdam)
	Hamburg	*HHLA Container Terminal*
07:00-10:00		Journey to Hamburg
10:15-11:45		Presentation of HHLA, CTA and Controlsystem
11:45-12:45		Lunch
12:45-14:15		Terminal tour
14:15-15:15		Discussion
15:30-18:30		Visit of Hamburg
18:30-21:30		Back to Berlin
We 07.10.		**Canada Day**
09:00-10:30	MG,TK	Written examination
11:00-12:00	MG,TK	Survey of Matheon, visit of 3D Studio, HLRN-II
13:30-17:30	MP	Challenging health care OR problems

Th 08.10.		**Nonlinear mixed integer programming**
09:00-09:30	NW	Survey of BMS
09:30-10:30	SV	Introduction to non-linear optimization
11:00-12:30	AF	Integrated sheet metal design
14:00-15:30	BH,AF	Modelling gas and water networks
16:00-17:30	SV,TK	Solving non-linear optimization problems

Fr 09.10.		**Finish**
09:00-10:00	TK	Real world data again
10:00-11:00	MG	Results of examination
11:30-13:00	MG	Summary, future perspectives and closing
13:30-??:??	TS, CR	Barbeque

MG	Martin Grötschel	
TK	Thorsten Koch	
CR	Christan Raack	
AW	Axel Werner	
IPG	Timo Berthold, Stefan Heinz, Kati Wolter, AG, TK	
RB	Ralf Borndörfer	ZIB / Matheon
DH	Dung Hoang	
BB	Bob Bixby	Gurobi
CB	Christina Burt	U Melbourne
YB	Yao Ban	U Melbourne
AB	Andreas Bley	TU Berlin
AG	Ambros Gleixner	
HM	Hans Mittelmann	Arizona State U
TA	Tobias Achterberg	ILOG/IBM
OB	Oliver Bastert	FICO
EA	Erling Anderson	MOSEK
TR	Ted Ralphs	Lehigh University
MH	Michael Hofmeister	Siemens
TS	Thomas Schlechte	
BH	Benjamin Hiller	
AF	Armin Fügenschuh	
PTG	RB, MN, TS, Carlos Cardonha, Ivan Dovicia	
MN	Marika Neumann	
AE	Andreas Eisenblätter	
MM	Maren Martens	
TUGS	Gründungsservice	TU Berlin
MP	Martin Puterman	U of British Columbia
NW	Nadia Wisniewski	Berlin Mathematical School
SV	Stefan Vigerske	Humboldt U zu Berlin