

Overview of the program

Guideline for speakers

- Each plenary/semi-plenary talk is 1 hour and each contributed talk is 25 minutes including questions and discussion.
- Please contact your chairperson before your session starts. In case the chairperson does not show up, the last speaker of the session is asked to chair this session.
- All session rooms will be equipped with an overhead projector and a video projector (beamer) and a notebook computer is available. You can bring your own laptop to your session or you can use the laptop in the lecture room.
- To avoid wasting time during the session, set up your presentation in the break before the session. In case you want to use the laptop provided, please hand in your presentation on USB key or a CD; a conference assistant will help you to install your file in the break before the session.

Guideline for chairpersons

- Chairpersons are asked to open and close the session on time.
- Please introduce the title of the talk and the name of the speaker before each presentation.
- Please let speakers know when their time is running short. If possible, about 5 minutes should be left for discussion. In case there are no other questions, it would be polite if the chairman provides some discussion remarks or questions.
- To facilitate exchanges between the two lectures rooms, the time schedule should be strictly adhered to.

Session code

Day x -SR

- Day** := Day of the week (Mon, Tue, Wed)
- x** := Time block (0..5)
- SR** := Session Room (SM:"Salle des Mariages" ; AF:" Anatole France")

BSPP: Best Student Paper Prize Session

Time schedule

Monday 04/26/2010		Tuesday 04/27/2010		Wednesday 04/28/2010	
08:45	Mon0-SM Opening session.	08:30	Tue1-SM Semi-plenary session: A. Agnetis: "Multi-agent scheduling problems." Chaired by J.C. Billaut	08:30	Wed1-SM Complexity and approximation. A. Kononov
09:00	Mon1-SM Plenary session: L. Wolsey "Mixed integer programming for production planning and scheduling" Chaired by E. Pinson	09:30	Tue2-SM Flowshop scheduling I. C. Andrés Romano	10:20	Coffee break
10:00	Coffee break	10:45	Coffee break	10:40	Wed2-SM Multi-skill project scheduling and applications. J. Weglarz
10:20	Mon2-SM Computing systems. J. Jozefowska	11:05	Tue3-SM Project scheduling. G. Ulusoy		Wed2-AF Applications of machine scheduling. S. Dauzère-Péres
	Mon2-AF Multicriteria scheduling. N. Huynh Tuong		Coffee break	12:30	Lunch break
12:30	Lunch break	12:30	Lunch break		
13:30	Mon3-SM Single machine scheduling. H. Hoogeveen	13:30	Tue4-SM Resource management and heuristics for project scheduling. F. Ballestin	13:30	Wed3-SM Scheduling in transportation and healthcare systems. A. Soukhal
	Mon3-AF Applications and software for project management. E. Demeulemeester		BSPP Shop scheduling and beyond. M.C. Portman		Wed3-AF Graph and scheduling. V. Gordon
15:35	Coffee break	15:10	Coffee break	15:35	Coffee break
15:55	Mon4-SM Specific project scheduling. M. VanHoucke	15:30	Tue5-SM Multicriteria scheduling. V. T'Kindt	15:55	Wed4-SM Plenary session: R. Moehring "Coping with Uncertainty in Project Scheduling: New Developments and Applications" Chaired by W. Herroelen
	Mon4-AF Parallel machine scheduling. F. Della croce		Coffee break		
17:15	Mon5-SM Jobshop scheduling. E. Pinson	16:20	Social event Castle of Langais. Visit of Gambier's vineyards. Wine tasting.	16:55	
	Mon5-AF Cyclic scheduling. C. Artigues			18:00	Social event Gala dinner at "Château de Jallanges"
18:30	Social event Reception at the town hall.				

Program of PMS'10 Tours Overview

Monday, April 26, 2010

Mon0-SM. 08h45-09h00 – “*Salle des mariages*”
OPENING SESSION

Mon1-SM. 09h00-10h00 – “*Salle des mariages*” Chairperson: A. Agnetis (IT)
PLENARY SESSION

- **Mixed integer programming for production planning and scheduling**
L. Wosley, University of Louvain, Belgium.

Mon2-SM. 10h20-12h30 – “*Salle des mariages*” Chairperson: J. Józefowska (PL)
COMPUTING SYSTEMS

- **New Lower Bounds for the Two-stage Multimedia Scheduling Problems**
J. Hong; A. Kononov; P. Kononova; F. Lin
- **Scheduling non-preemptive jobs on a multi-core processor with respect to energy usage to minimize makespan**
R. Rozycki; J. Weglarz
- **A Bilevel Programming Model for Grid Scheduling**
L. Bianco; M. Caramia; S. Giordani
- **Schedulability analysis of multiple criticality real-time tasks**
F. Dorin; J. Goossens; P. Richard; M. Richard
- **Dynamic divisor-based resource scheduling algorithm**
J. Józefowska; L. Józefowski; W. Kubiak

Mon2-AF. *10h20-12h30 – “Anatole France”* Chairperson: N. Huynh Tuong (VN)
MULTICRITERIA SCHEDULING

- **A Tabu Search Algorithm for Order Acceptance and Scheduling**
B. Cesaret; C. Oguz; F. Sibel Salman
- **Bi-objective Pareto optimization for the hybrid flowshop problem**
T. Urlings; G. Minella; R. Ruiz
- **Finite-capacity due date setting in permutation flowshops: Analysis of solutions and simple heuristics**
P. Perez-Gonzalez; J. M. Framinan
- **A branch-and-bound algorithm for two-agent single-machine scheduling of deteriorating jobs**
S. Gawiejnowicz; W. Lee; C. Lin; C. Wu
- **Single machine Scheduling problem with interfering jobs**
N. Huynh Tuong; A. Soukhal

Mon3-SM. *13h30-15h35 – “Salle des mariages”* Chairperson: H. Hoogeveen (NL)
SINGLE MACHINE SCHEDULING

- **Meta-heuristic optimization of the single machine scheduling problem**
V. Sels; M. Vanhoucke
- **Scheduling on a single machine with no idle time to minimize a regular criterion**
A. Jouglet
- **Lot-Streaming and Just-In-Time Scheduling on a Single Machine with a Common Due Date**
H. Oncu; S. Kedad-Sidhoum
- **Polynomially solvable case of the NP -hard problem $1|r_j|L_{\max}$**
A. Lazarev; D. Arkhipov; I. Karpov
- **Minimizing the number of late jobs when the start time of the machine is variable**
H. Hoogeveen; V. T'kindt

Mon3-AF. *13h30-15h35 – “Anatole France”* Chairperson: E. Demeulemeester (DE)
APPLICATIONS AND SOFTWARE FOR PROJECT MANAGEMENT

- **Scheduling of Outbound Baggage at Airports**
M. Frey; R. Kolisch
- **Project scheduling with alternative technologies and stochastic activity durations**
S. Creemers; B. D. Reyck; R. Leus
- **An implementation of the iterative forward/backward scheduling technique in Microsoft Project**
P. Baumann; N. Trautmann; A. Zimmermann
- **Teaching Project Management with PTB - Project Team Builder**
A. Shtub
- **Railway scheduling reduces the expected project makespan**
E. Demeulemeester; W. Tian

Mon4-SM. 15h55-17h15 – “Salle des mariages” Chairperson: M. Vanhoucke (BE)
SPECIFIC PROJECT SCHEDULING

- **The multi-agent project scheduling problem : the fair share of stress**
C. Briand; T. Lehaux
- **Tabu Search for a Project Scheduling Problem with Incompatibility and Assignment Costs**
N. Zufferey; O. Labarthe; D. Schindl
- **Learning effects under different project settings**
V. Van Peteghem; M. Vanhoucke

Mon4-AF. 15h55-17h15 – “Anatole France” Chairperson: F. Della Croce (IT)
PARALLEL MACHINE SCHEDULING

- **Makespan Minimization for Parallel Machine Scheduling with an Availability Constraint**
N. Hashemian; C. Diallo; B. Vizvari
- **Heuristic algorithms for minimizing weighted earliness-tardiness in parallel machines**
F. Villa; R. Alvarez-Valdes; J. Tamarit
- **Iterated local search and very large neighborhoods for the parallel-machines total tardiness problem**
F. Della Croce; T. Garaix; A. Grosso

Mon5-SM. 17h15-18h30 – “Salle des mariages” Chairperson: E. Pinson (FR)
JOB SHOP SCHEDULING

- **Generalized constraint propagation for solving job shop problems with time lags**
M.J. Huguet; C. Artigues; M. Dugas; P. Lopez
- **The maximum lateness in a job shop**
G. Pinot
- **Solving an integrated Job-Shop problem with human resource constraints**
O. Guyon; P. Lemaire; E. Pinson; D. Rivreau

Mon5-AF. 17h15-18h30 – “Anatole France” Chairperson: C. Artigues (FR)
CYCLIC SCHEDULING

- **Batch Cyclic Scheduling with setups. A multi-objective approach**
J.P. García Sabater; C. Andrés; J. A. Martínez Ortiz
- **A Fast Algorithm for the Cyclic Job-Shop Problem with one Transport Robot, Blocking, Setup Times and a Fixed Robotic Cycle**
P. Brucker; E. Burke; S. Groenemeyer
- **Column Generation based lower bounds for the Resource Constrained Modulo Scheduling**
M. Ayala; C. Artigues

Tuesday, April 27, 2010

Tue1-SM. *08h30-09h30* – “*Salle des mariages*” Chairperson: J.C Billaut (FR)
SEMI PLENARY SESSION

- **Combinatorial Models for Multi-Agent Scheduling Problems**
A. Agnetis, University of Siena, Italy.

Tue1-AF. *08h30-09h30* – “*Anatole France*” Chairperson: R. Kolisch (DE)
SEMI PLENARY SESSION

- **Dynamic scheduling: If time is money, accuracy pays!**
M. Vanhoucke, Ghent University, Belgium.

Tue2-SM. *09h30-10h45* – “*Salle des mariages*” Chairperson: C. Andrés Romano (SP)
FLOWSHOP SCHEDULING I

- **Minimization of Total Completion Time in Flowshop Scheduling Subject to Fixed Job Sequences**
F. Hwang; M. Y. Kovalyov; B. M.T. Lin
- **Scheduling under transportation constraints to minimize total completion time criteria**
N. Chikhi; M. Boudhar
- **A Mixed Integer Linear Programming model for scheduling Three Stage Assembly Flow Shop Scheduling Problem with Sequence Dependent Setup Times**
C. Andres; S. Hatami

Tue2-AF. *09h30-10h45* – “*Anatole France*” Chairperson: S. Gawiejnowicz (PL)
SPECIFIC MACHINE SCHEDULING PROBLEMS

- **Scheduling with Inserted Idle Time in a Stochastic Single Machine System to Minimize Quadratic Functions of Job Lateness and Idle Time**
H. M. Soroush
- **Time-dependent scheduling with mixed job processing times**
S. Gawiejnowicz; B. M.T. Lin

Tue3-SM. *11h05-12h30* – “*Salle des mariages*” Chairperson: G. Ulusoy (TK)
PROJECT SCHEDULING (BSPP SESSION)

- **Performance of Garey-Johnson algorithm for unitary RCPSP**
A. Benabid; C. Hanen

- **Markov-Decision-Process-based Approaches for Scheduling R&D-Projects in a Stochastic Dynamic Environment**
P. Melchioris; R. Kolisch
- **Resource Dedication Problem in a Multi-Project Environment**
U. Besikci; U. Bilge; G. Ulusoy

Tue3-AF. *11h05-12h30 – “Anatole France”* Chairperson: P. Lopez (FR)
FLOWSHOP SCHEDULING II

- **An Efficient Arborescent Neighborhood for the Permutation Flow-Shop Problem**
L. Deroussi; M. Gourgand; S. Norre
- **Limited discrepancy heuristic for scheduling problems with time lags**
W. Karoui; M.J. Huguet; P. Lopez; M. Haouari
- **Discrepancy search for solving flexible scheduling problems**
A. Ben Hmida; M. Haouari; M.J. Huguet; P. Lopez

Tue4-SM. *13h30-15h10 – “Salle des mariages”* Chairperson: F. Ballestin (SP)
RESOURCE MANAGEMENT AND HEURISTICS FOR PROJECT SCHEDULING

- **Resource levelling in a parallel machine environment**
M. Drotos; T. Kis
- **A linearized mixed-integer formulation for the resource levelling problem**
T. Gather; J. Rieck; J. Zimmermann
- **Decentralized negotiation Projects vs Resources for multiproject scheduling in real time environments**
A. Arauzo; J. Pajares; A. López-Paredes; J. Pavon
- **A heuristic algorithm for the RCPSP with due dates: the uni- and the multiobjective case**
F. Ballestin; R. Blanco

Tue4-AF. *13h30-15h10 – “Anatole France”* Chairperson: M.C. Portman (FR)
SHOP SCHEDULING AND BEYOND (BSPP SESSION)

- **A genetic approach based recovering beam search for minimizing the total completion time in a dynamic single machine scheduling problem**
M.A. Rakrouki; T. Ladhari; V. T'kindt
- **Complexity and approximation for scheduling problem for coupled-tasks in presence of compatibility tasks**
G. Simonin; R. Giroudeau; J.C. König
- **Deadlock analysis for open shop processing systems**
C. Eggermont; A. Schrijver; G. Woeginger
- **Competitive solutions for a dock assignment problem by means of Lagrangian relaxation**
L. Berghman; R. Leus

Tue5-SM. *15h30-16h20 – “Salle des mariages”* Chairperson: V. T’Kindt (FR)
MULTICRITERIA SCHEDULING (BSPP SESSION)

- **The two-machine flow-shop serial-batching scheduling problem with limited batch size**
A. Bouzaïene; M.A. Aloulou; N. Dridi; D. Vanderpooten
- **Scheduling two interfering job sets on uniform parallel machines with maximum criteria functions**
D. Elvikis; H.W. Hamacher; V. T’kindt

Tue5-AF. *15h30-16h20 – “Anatole France”* Chairperson: E. Néron (FR)
LOWER BOUNDS AND PROJECT SCHEDULING

- **Properties of lower bounds for RCPSP**
E.R. Gafarov; A.A. Lazarev; F. Werner
- **Improving Classical Energetic Reasoning for the Resource Constrained Project Scheduling Problem**
A. Kooli; M. Haouari; L. Hidri; E. Néron

Wednesday, April 28, 2010

Wed1-SM. *08h30-10h20 – “Salle des mariages”* Chairperson: A. Kononov (RU)

COMPLEXITY AND APPROXIMATION

- **Minimizing due date objective functions in scheduling a batching machine with job compatibilities**
A. Belanger; M.Y. Kovalyov; A. Oulamara
- **An EPTAS for scheduling jobs on uniform processors**
K. Jansen
- **Preemptive Scheduling with jobs transportation**
A. Haned; M. Boudhar; A. Soukhal; N. Huynh Tuong
- **Resource-constrained Scheduling to Minimize the Total Weighted Completion Time**
A.V. Kononov; B.M.T. Lin

Wed1-AF. *08h30-10h20 – “Anatole France”*

Chairperson: L. Bianco (IT)

EXACT METHODS FOR PROJECT SCHEDULING

- **A branch-and-bound method for the Generalized Resource-Constrained Project Scheduling Problem**
J. Carlier; A. Moukrim; H. Xu
- **Project Scheduling in the Presence of Productivity Functions**
S. Sarin; D. Steeneck
- **An on/off event-based formulation for RCPSP with production and consumption of resources**
O. Kone; C. Artigues; P. Lopez; M. Mongeau
- **A Branch and Bound Algorithm for the RCPSP with Feeding Precedences and Makespan Minimization**
L. Bianco; M. Caramia

Wed2-SM. *10h40-12h30 – “Salle des mariages”*

Chairperson: J. Weglarz (PL)

MULTI-SKILL PROJECT SCHEDULING AND APPLICATIONS

- **Staffing projects with multi-skilled workers in matrix organisations**
M. Walter; J. Zimmermann
- **Detecting, Measuring and Repairing Instabilities in Schedules of Tasks with Skill Requirements**
M. Firat; C. Hurkens; A. Laugier
- **MRCPSp with Transportation Network: Algorithms for Feasible Resource Allocation**
M. Mika; G. Waligora; J. Weglarz

Wed2-AF. *10h40-12h30 – “Anatole France”*

Chairperson: S. Dauzère-Pérès (FR)

APPLICATIONS OF MACHINE SCHEDULING

- **Large Neighborhood Search for Scheduling splittable tasks on multi-purpose parallel machines**
J. Qian; C. Pessan; E. Néron
- **Solution of a storage problem in a shampoo making system**
R. Belaid; V. T'kindt; C. Esswein
- **An innovative application of real-time machine sequencing to the on-line management of warehouse operations**
S. Quintanilla; F. Ballestín; P. Lino; A. Pérez; V. Valls
- **Scheduling Job Families on Non-Identical Parallel Machines under Run-To-Run Control Constraints**
A. Obeid; S. Dauzère-Pérès; C. Yugma, A. Ferreira

Wed3-SM. *13h30-15h35* – “*Salle des mariages*” Chairperson: A. Soukhal (FR)
SCHEDULING IN TRANSPORTATION AND HEALTHCARE SYSTEMS

- **Resource scheduling optimization in mass transportation problems**
A. Jeanjean
- **A polynomial algorithm for a simple scheduling problem at cross docking terminals**
R. Sadykov
- **A Tabu search heuristic for the design of hospital material flows**
Y. Kergosien; C. Lenté; J.C Billaut
- **Combination of metaheuristics and simulation model for planification of pick-up and delivery activities**
V. André; J. Faucher; N. Grangeon; S. Norre
- **Makespan minimization with job splitting on a single parallel batching machine for washing operations of hospital sterilization services**
O. Ozturk; M.L. Espinouse; M. Di Mascolo; A. Gouin

Wed3-AF. *13h30-14h20* – “*Anatole France*” Chairperson: V. Gordon (BL)
GRAPH AND SCHEDULING

- **A simple property of interval ordered graphs**
A. Munier-Kordon
- **On the independent set problem in triangle graphs**
J. Blazewicz; A. Dolgui; V. Gordon; Y. Orlovich

Wed4-SM. *15h55-16h55* – “*Salle des mariages*” Chairperson: W. Herroelen (BE)
PLENARY SESSION

- **Coping with Uncertainty in Project Scheduling: New Developments and Applications**
R. Moehring