One-day symposium on Optimization and Engineering

Sponsored by CORE, FUSL and ORBEL
`www.orbel.be/workshops/opteng06/`

CORE, UCL, Louvain-la-Neuve

May 24, 2006

One-day symposium

Organizing committee

◇ Annick SARTENAER (FUNDP)

◇ Yves CRAMA and Philippe RIGO (ULG)

◇ Etienne LOUTE (FUSL) and François GLINEUR (CORE)

◇ Sylvie MAUROY and Sheila WEYERS (CORE)

Participants

◇ Eleven speakers, forty participants

ORBEL

Belgian Operations Research society

◇ Annual ORBEL conference

next year: *ORBEL21* in Luxembourg

◇ ORBEL Award for best Master thesis in O.R.

◇ International journal 4OR

◇ Workshops

◇ Over a hundred members

◇ www.orbel.be

CORE

Center for Operations Research and Econometrics

◇ Happy birthday: 40 years!

◇ Interdisciplinary, more than a hundred members

◇ Operations research:

– Workshop Mixed Integer and Integer Programming - The Way Forward (May 31st–June 1st)

– Lecture series on Mixed Integer Nonlinear Programming by R. Weismantel (September 4-15)

– Weekly mathematical programming seminar

◇ www.core.ucl.ac.be

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ORBEL

CORE 40 YEARS

9:00	WELCOME

9:10–10:40

▸ (Bio)-mechanical engineering applications of convex optimization
Bram DEMEULENAERE (KUL/MECH)

▸ Optimization of multibody systems
Jean-François COLLARD AND *Paul* FISETTE (UCL/MECA)

▸ Solving lower/upper bound approaches of limit analysis by an interior-point method for convex programming *Franck* PASTOR (FUSL)

10:40–11:00	COFFEE BREAK

11:00–12:00 — PLENARY TALK

▸ Optimization methods for variational data assimilation into ocean models
Serge GRATTON (CERFACS)

12:00–12:30

▸ Optimization based on evolutionary algorithms for aeronautics
Rajan Filomeno COELHO (CENAERO)

12:30–14:00	LUNCH (at the *Fleur de Sel* restaurant)

14:00–15:30

▸ Simulation and optimization of a shipbuilding workshop
Frédéric BAIR (ULG/ANAST)

▸ Mixed integer models for naval structure optimization
Maud BAY (ULG/ROGP)

▸ Designing a new distribution strategy for a low-value goods producer: a practical solution for the inventory routing problem *El-Houssaine* AGHEZZAF (Ghent)

15:30–15:50	COFFEE BREAK

15:50–17:20

▸ Optimizing future wireless communication systems
Jonathan DUPLICY (UCL/ELEC)

▸ Development of an algorithm for solving mixed integer and nonconvex problems arising in electrical supply networks *Emilie* WANUFELLE (FUNDP)

▸ Use of genetic algorithm for designing redundant sensor network
Carine GERKENS (ULG/LASSC)

17:20	CLOSING WORDS

Have a nice and fruitful conference!