



6th ESICUP Meeting

Valencia, Spain, March 25 - 27, 2009



**EURO Special Interest Group
on Cutting and Packing**

EURO

The Association of European
Operational Research Societies



CONSELLERIA D'EDUCACIÓ

Organization



Scientific Program Schedule

Thursday, 26th March

9h30 – 11h00

Opening + Session 1

(Room 1.1-1.2)

Chairperson: *Ramon Alvarez-Valdes*

Welcome

1.1 – Invited Talk: Recent trends and future paths for metaheuristics

Kenneth Sorensen

1.2 – A typology of research and solution method of cutting and packing problems

Yiping Lu, Lu Wang, Jianzhong Cha

11h30 – 13h00

Session 2

(Room 1.1-1.2)

Chairperson: *Gerhard Wäscher*

2.1 – The usable leftover one-dimensional cutting stock problem - a priority in use heuristic

Horacio Hideki Yanasse, Adriana Cristina Cherri, Marcos Nereu Arenales

2.2 – One-dimensional cutting stock problem for a paper tube industry

Shunji Umetani, Kazuki Matsumoto, Hiroshi Nagamochi

2.3 – Sequencing cutting patterns by an enhanced genetic algorithm

Luigi De Giovanni, Ferdinando Pezzella, Gionata Massi

2.4 – Controlling open stacks and flow time in a cutting process

Fabrizio Marinelli, Claudio Arbib, Ferdinando Pezzella

15h00 – 16h30

Session 3a

(Room 2.1)

Chairperson: *Julia A. Bennell*

3a.1 – Packing problems of congruent circles into a circle and congruent spheres into a circular cylinder

Yu. Stoyan, G. Yaskov

3a.2 – Packing of non-oriented composed 2D objects

T. Romanova, Yu. Stoyan, M. Zlotnik

3a.3 – Algebra of the number of 2D and 3D Cutting/Packing patterns

Gyongyver Marton, Jenő Györfi

3a.4 – Models and Algorithms for Fair Layout Optimization Problems

Manuel Iori, Albert E. Fernandes Muritiba, Silvano Martello, Marcos J. Negreiros Gomes

Session 3b

(Room 2.4)

*Chairperson: Gleb Belov***3b.1** – The constrained compartmentalised Knapsack Problem - Modelling and Solution Methods*Marcos Arenales, Aline Leão, Maristela Santos, Robinson Hoto***3b.2** – Tackling Many-Constraint One-Dimensional Bin Packing with Clustering Genetic Algorithms*Madan Sathe, Olaf Schenk, Helmar Burkhart***3b.3** – New Lower Bounds for Bin Packing Problems with Conflicts*Ali Khanafer, François Clautiaux, El-Ghazali Talbi***3b.4** – LP-Based Heuristics for Conservative Scales in Orthogonal Packing*Gleb Belov, Heide Rohling, Guntram Scheithauer***17h00 – 18h10****Session 4a**

(Room 2.1)

*Chairperson: A. Miguel Gomes***4a.1** – New implementation of the best-fit heuristic for rectangle packing and tight analysis on approximation ratio*Shinji Imahori, Mutsunori Yagiura***4a.2** – An ILS approach to the rectangle packing area minimization problem*Marisa Oliveira, Eduarda Pinto Ferreira, A. Miguel Gomes***4a.3** – A recursive branch-and-bound algorithm for constrained homogeneous T-shape cutting patterns*Yaodong Cui***Session 4b**

(Room 2.4)

*Chairperson: Reinaldo Morabito***4b.1** – An Integrated Lot Sizing and Cutting Machine Programming Problem in the Furniture Industry*Silvio Alexandre de Araujo, Socorro Rangel, Silvia Grandi dos Santos***4b.2** – The Dynamic Multi-Period Cutting Stock Problem with Due Dates*Harald Reinertsen, Thomas W.M. Vossen***4b.3** – A robust optimization approach to the integrated lot sizing and cutting stock problem in a furniture industry*Reinaldo Morabito, Douglas Alem*

Friday 27th March**9h30 – 11h00****Session 5***(Room 1.1-1.2)**Chairperson: José Fernando Gonçalves*

- 5.1** – A Multi-Population Hybrid Genetic Algorithm for a Home Textile Cutting Problem
José Fernando Gonçalves
- 5.2** – A Parallel Evolutionary Approach to solve a Multi-Objective Two-Dimensional Strip Packing Problem
Jesica de Armas, Coromoto León, Gara Miranda, Carlos Segura
- 5.3** – An Exact Approach for the 1D Contiguous Cutting-Stock Problem
Marat Mesyagutov, Guntram Scheithauer, Gleb Belov
- 5.4** – Efficient branch-and-bound algorithms for one-dimensional contiguous bin packing problem and two-dimensional strip packing problem
Takashi Imamichi, Yohei Arahori, Hiroshi Nagamochi

11h30 – 13h00**Session 6***(Room 1.1-1.2)**Chairperson: Andreas Bortfeldt*

- 6.1** – A multi-level Mip-based heuristic approach for the cargo accommodation of a space vehicle
Giorgio Fasano
- 6.2** – Hybrid Local Search Techniques for 3-Dimensional Packing
Sara Ceschia, Andrea Schaerf
- 6.3** – A Packing and Routing Application for a Portuguese Trading Company
Ana Moura, Andreas Bortfeldt
- 6.4** – A GRASP-Path Relinking algorithm for multiple sized bin packing problem
F. Parreño, R. Alvarez-Valdes, J. M. Tamarit

13h00 – 13h10**Closing Session***(Room 1.1-1.2)**Chairperson: José F. Oliveira*

Closing notes