

Nelson Chibeles Martins  
Researcher, Assistant Professor  
DM - Departamento de Matemática  
CMA - Centro de Matemática e Aplicações  
Email: npm@fct.unl.pt  
Phone: 212948388



## Employment

### Assistant Professor

DM - Departamento de Matemática  
Universidade NOVA de Lisboa  
Portugal  
3 Oct 2005 → present

### Integrated member (PhD)

Researcher  
CMA - Centro de Matemática e Aplicações  
Universidade NOVA de Lisboa  
Portugal  
11 Oct 1997 → present

## Research outputs

### Comparison of two Meta-Heuristics for the Bi-Objective Flexible Job Shop Scheduling Problem with Sequence Dependent Setup Times

Sacramento, J., Pedrosa, J., Chibeles-Martins, N. & Pinto-Varela, T., Jan 2020, *30th European Symposium on Computer Aided Process Engineering, Proceedings*. Pierucci, S., Manenti, F., Bozzano, G. L. & Manca, D. (eds.). Elsevier B.V., p. 181-186 6 p. (Computer Aided Chemical Engineering; vol. 48).

### Random variables as arc parameters when solving shortest path problems

Rasteiro, D. & Chibeles-Martins, N., 2020, *Calculus for Engineering Students: Fundamentals, Real Problems, and Computers*. Martín-Vaquero, J., Carr, M., Queiruga-Dios, A. & Richtáriková, D. (eds.). Academic Press, p. 197-219 (Mathematics in Science and Engineering).

### A review of multi-criteria decision making approaches for evaluating energy storage systems for grid applications

Baumann, M., Weil, M., Peters, J. F., Chibeles-Martins, N. & Moniz, A. B., 1 Jun 2019, In: *Renewable and Sustainable Energy Reviews*. p. 516-534 19 p.

### A combined optimisation and decision-making approach for battery-supported HMGS

Marcelino, C., Baumann, M., Carvalho, L., Chibeles-Martins, N., Weil, M., Almeida, P. & Wanner, E., Apr 2019, In: *Journal of the Operational Research Society*.

### Multi-start local search procedure for the maximum fire risk insured capital problem

Gomes, M. I., Afonso, L. B., Chibeles-Martins, N. & Fradinho, J. M., 1 Jan 2018, *Combinatorial Optimization - 5th International Symposium, ISCO 2018, Revised Selected Papers*. Springer Verlag, p. 219-227 9 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 10856 LNCS).

### A Bi-objective two step Simulated Annealing Algorithm for Production Scheduling

Chibeles-Martins, N., Marques, A. & Pinto-Varela, T., 1 Oct 2017, *Computer Aided Chemical Engineering*. Elsevier B.V., Vol. 40. p. 1351-1356 6 p. (Computer Aided Chemical Engineering; vol. 40).

### **A multi-objective meta-heuristic approach for the design and planning of green supply chains - MBSA**

Chibeles-Martins, N., Pinto-Varela, T., Barbosa-Póvoa, A. P. & Novais, A. Q., 1 Apr 2016, In: Expert Systems with Applications. 47, p. 71-84 14 p.

### **Mathematics in the Making: A view over the Portuguese activities**

Soares, M. D. C. C., Rodrigues, F., Chibeles Martins, N., Baptista, S. M. M. H. B., Guerreiro, G. R. D. & Ughi, E., 2016, *PROCEEDINGS OF THE RECREATIONAL MATHEMATICS COLLOQUIUM IV*, ISBN 978-989-99506-0-3 Associação LUDUS. p. 123-132

### **Soft skills for science and technology students: A pedagogical experience**

Costa, R. A., Fonseca, J. M., Kullberg, J. C., Martins, N. C. & Santana, F., 4 Nov 2015, *Proceedings of 2015 International Conference on Interactive Collaborative Learning, ICL 2015*. Institute of Electrical and Electronics Engineers Inc., p. 1198-1202 5 p. 7318206

### **Simulated Annealing for Production Scheduling: A Case Study**

Marques, A., Chibeles Martins, N. & Pinto-Varela, T., 8 Oct 2015, *Operations Research and Big Data: IO2015-XVII Congress of Portuguese Association of Operational Research (APDIO)*. Barbosa Póvoa, A. P. & Miranda, J. (eds.). Springer International Publishing, Vol. 15. p. 107-114 8 p. (Studies in Big Data; vol. 15).

### **ClubeMath: do 1º ciclo à universidade**

Soares, M. D. C. C., Guerreiro, G. R. D., Rodrigues, F., Baptista, S. M. M. H. B. & Chibeles Martins, N., 2015, *Proceedings da Conferência Internacional do Espaço Matemático em Língua Portuguesa*.

### **MiMa - Mathematics in the Making - The Project**

Soares, M. D. C. C., Guerreiro, G. R. D., Chibeles Martins, N., Rodrigues, F., Baptista, S. M. M. H. B., Adams, G., Jackson, C., Povey, H., Beutelspacher, A., Kahlen, C., Ughi, E., Weber, R., Holló-Szabó, F., Munkácsy, K., Vásárhelyi, É. & Wintsche, G., 2015, Sheffield, England: Sheffield Hallam University. 40 p.

### **MiMa - Mathematics in the Making - The Toolkit**

Soares, M. D. C. C., Guerreiro, G. R. D., Baptista, S. M. M. H. B., Chibeles Martins, N., Rodrigues, F., Adams, G., Beutelspacher, A., Elett, M., Holló-Szabó, F., Jackson, C., Kahlen, C., Munkácsy, K., Povey, H., Ughi, E., Vásárhelyi, É., Weber, R. & Wintsche, G., 2015, *MiMa - Mathematics in the Making - The Toolkit*. FCT-UNL, 64 p.

### **Projeto europeu MiMa – Mathematics in the Making**

Soares, M. D. C. C., Guerreiro, G. R. D., Rodrigues, F., Chibeles Martins, N., Baptista, S. M. M. H. B., Neves, C. & Capela, A., 2015, *Proceedings da Conferência Internacional do Espaço Matemático em Língua Portuguesa*.

### **Multi-objective meta-heuristic approach supported by an improved local search strategy for the design and planning of supply chain networks**

Chibeles Martins, N., 1 Jan 2014, *Computer-Aided Chemical Engineering*. p. 313–318

### **A Simulated Annealing Algorithm for the Design and Planning of Supply Chains with Economic and Environmental Objectives**

Chibeles Martins, N., 1 Jan 2012, *Computer Aided Chemical Engineering*. p. 21-25

### **MathGames**

Rodrigues, M. D. F. V. D. G. S., Soares, M. D. C. C. & Chibeles Martins, N., 1 Jan 2012, *NA*. p. 169-174

### **A Simulated Annealing Approach for the BiObjective Design and Scheduling of Multipurpose Batch Plants**

Chibeles-Martins, N., Pinto-Varela, T., Barbósa-Póvoa, A. P. & Novais, A. Q., 20 Jun 2011, In: Computer Aided Chemical Engineering. 29, p. 865-869 5 p.

### **A Simulated Annealing Approach for the Bi- Objective Design and Scheduling of Multipurpose Batch Plants**

Chibeles Martins, N., 1 Jan 2011, *COMPUTER-AIDED CHEMICAL ENGINEERING*. p. 865-869

**Adoras Matemática? Ótimo! Detestas Matemática? Perfeito!**

Soares, M. D. C. C., Rodrigues, M. D. F. V. D. G. S. & Chibeles Martins, N., 1 Jan 2010, *Boletim da Sociedade Portuguesa de Matemática*. p. 124-129

**A Meta-Heuristics Approach for the Design and Scheduling of Multipurpose Batch Plants**

Chibeles Martins, N., 1 Jan 2010, *Computer-Aided Chemical Engineering*. Pierucci, S. & Ferraris, B. (eds.). SARA BURGERHARTSTRAAT 25, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS: ELSEVIER SCIENCE BV, Vol. 28. p. 1315-1320

**Awards**

**MiMa: Mathematics in the Making**

Baptista, S. M. M. H. B., Martins, N. C., Guerreiro, G. R. D., Rodrigues, M. D. F. V. D. G. S. & Soares, M. D. C. C.  
Fundação para a Ciência e a Tecnologia  
30/11/13 → 29/11/15