

# Resume

## Personal Data

Yu LI

E-mail : [yu.li @u-picardie.fr](mailto:yu.li@u-picardie.fr)

Address : Laboratoire MIS, 33 rue Saint Leu, 80039 Amiens Cedex 1  
Université de Picardie Jules Verne, France

Telephone : +33 3 22 82 59 00

## Education

1990—1993 : PhD. In Computer Science, Université de Technologie de Compiègne, France

1985—1988 : MSc. In Computer Science, Huazhong Universtiy of Science and Technology, Wuhan, China

1981—1985 : BSc. In Computer Science, Huazhong Universtiy of Science and Technology, Wuhan, China

## Work Experience

**1994— Present : Associate Professor, Université de Picardie Jules Verne, France**

## Research : Theory of Computation, Practical Resolution of NP— hard problems

### 1990 — 1997 : Reliability Computation of Communication Networks

- Jacques CARLIER, Yu LI, Jean-Luc LUTTON, *Reliability evaluation of large telecommunication networks*, Discrete Applied Mathematics 76 (1997), pp.61-80.

### 1998 — 2000 : Optimization of Communication Networks by Genetic Algorithms

- Yu LI, Bouchebaba YOUCEF, *A new genetic algorithm for the optical communication spanning tree problem*, Springer LNCS 1829, pp. 162-173, Artificial Evolution 99, Dunkerque, France, November 1999.
- Yu LI, *An effective implementation of a direct spanning tree representation in Genetic Algorithms*, Springer LNCS 2037, pp.11-19, EvoCOP 2001, Como, Italy, April 2001.

### 2001 — 2006 : Circle Packing by Quasi-Human and Quasi-Physical Algorithms

- WenQi HUANG, Yu LI, RuChu XU, *Local search based on a physical model for solving a circle packing problem*, Meta-Heuristic Internatinal Conference (MIC 2001), Porto, Portugal, July 2001.
- WenQi HUANG, Yu LI, ChuMin LI, Ruchu XU, *A learning from human heuristic for solving unequal disks packing problem*, International Workshop on Heuristics (IWH 2002), Beijing, China, July 2002.
- WenQi HUANG, Yu LI, Bernard JURKOWIAK, ChuMin LI, Ruchu XU, *A Two-Level Search Strategy for Packing Unequal Circles into a Circle Container*, the 9th International Conference on Principles and Practice of Constraint Programming (CP 2003), Springer-Verlag, pp.868-872, Kinsale, Ireland, September 29-October 3, 2003.

- WenQi Huang, Yu LI, Hakim Akeb, ChuMin LI, *Greedy algorithms for packing unequal circles into a rectangular container*, Journal of the Operational Research Society (JORS), Vol 56, Number 5, pp.539-548, May 2005.
- WenQi HUANG, Yu LI, ChuMin LI, RuChu XU, *New heuristics for packing unequal circles into a circular container*, Computers & operations research , Vol 33, Issue 8, pp.2125-2142, August 2006.
- Hakim AKEB & Yu LI, *A hybrid heuristic for packing unequal circles into a circular container*, IEEE/SSSM'06 International Conference (SSSM), Université de Technologie de Troyes, Octobre 2006.

## 2007 – 2011 : Graph Sum Coloring Problem Resolution by Heuristic Algorithms

- Yu LI, Corinne LUCET, Aziz MOUKRIM, Kaoutar SGHIOUER, *Greedy algorithms for the sum coloring problem*, International Workshop : Logistic and Transport, 22-24 2009, Sousse, Tunisie.
- Aziz MOUKRIM, Kaoutar SGHIOUER, Corinne LUCET, Yu LI. *Lower bounds for the minimum sum coloring problem*, Electronic Notes in Discrete Mathematics, 36:663–670, 2010.

## 2008 – Present :

### (1) SAT Problem Resolution by Heuristic Algorithms

- Chu Min LI and Wanxia WEI and Yu LI, *Exploiting historical relationships of clauses and variables in local search for satisfiability*, Proceedings of SAT-2012, pp.479-480.
- Chu Min LI and Yu LI, *Satisfying versus Falsifying in Local Search for Satisfiability*, Proceedings of SAT-2012, pp. 477-478.

### (2) Theory of Computation

#### Seminars :

- August 2011, Institut of Computational Theory and Application, Huazhong University of Science and Technology, China  
– Topic: *Figure out of decision problems*
- May 2012, Institut of Computational Theory and Application, Huazhong University of Science and Technology, China  
– Topic: *Interpretation of Cook's theorem*
- June 2012, Laboratory MIS, University of Picardie Jules Verne, France  
– Topic: *Interpretation of « decision problem »*
- October 2013, Institut of Computational Theory and Application, Huazhong University of Science and Technology, China  
– Topic: *Information, décision and non-determinism*
- December 2013, Laboratory MIS, University of Picardie Jules Verne, France  
– Topic: *What is NP ?*
- February 2014, Laboratory ROAD, University of Picardie Jules Verne, France  
– Topic : *What is Cook's theorem ?*
- December 2014, Laboratory MIS, University of Picardie Jules Verne, France  
– Topic : *What is P versus NP ?*

#### Conferences:

Yu LI, *Interpretation of Cook's theorem - What is NP?* Proceedings of The 1st International Conference on Philosophy of Information 2013, pp. 474-481, Xian, China.