

# Curriculum Vitae

**Name:** Hui Gao

**Sex:** Male

**Date of Birth:** 8 Sept. 1969

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**Home Address:** Billitonplein 10A, 9715 GL Groningen, The Netherlands.

**8 Sept. 1969:** Born in Sanchang town, Haimen city, Jiansu province, China.

**1976-1981:** Primary school.

**1981-1987:** Jiansu Haimen middle school, one of the best middle schools in Jiangsu Province.

**1987:** Won the second prize in a national math competition for the high school students.

**1987-1991:** Department of Informatics, School of Mathematical Sciences, Peking University.

**July 1991:** Received Bachelor degree in Mathematical Sciences.

**1991-1993:** Computer science teacher in the High School Affiliated to the Renmin University of China.

**1993-1999:** Senior Computer science teacher in the High School Affiliated to the Renmin University of China.

**Feb. 2000-Jan. 2001:** Ph.D. student in research school of Probability and Statistics, Department of Mathematics and Computing Science, University of Groningen, The Netherlands. Research subject: stochastic models for transport in fluidized bed reactors, mathematical aspects.

**Nov. 2000:** Former supervisor Prof. Dr. H.G. Dehling left for Bochum university.

**Feb. 2001-Jan. 2005:** Ph.D. student in research school of Fundamental Computing Science, Department of Mathematics and Computing Science, University of Groningen, The Netherlands. Research subject: formal verification of reliable and efficient concurrent algorithms.

**15 April. 2005:** Doctoral defence ceremony.

## Main publications (since 2000)

- [1] Gao, H., Groote, J.F., Hesselink, W.H.: Lock-free Dynamic Hash Tables with Open Addressing. *Distributed Computing (2004)* ISSN: 0178-2770 (Paper) 1432-0452 (Online) DOI: 10.1007/s00446-004-0115-2. Revision of *Technical Report CS-Report 03-03*, Department of Mathematics and Computer Science, Eindhoven University of Technology, 2003. <http://arXiv.org/abs/cs.DC/0303011>.

- [2] Gao, H., Groote, J.F., Hesselink, W.H.: Lock-free Parallel Garbage Collection by Mark&Sweep. *Computer Science Report CSR-04-31*, Department of Mathematics and Computer Science, Eindhoven University of Technology, 2004. [http://www.cs.rug.nl/~wim/mechver/garbage\\_collection](http://www.cs.rug.nl/~wim/mechver/garbage_collection).
- [3] Gao, H. and Hesselink, W.H.: A formal reduction for lock-free parallel algorithms. *Proceedings of the 16th Conference on Computer Aided Verification (CAV)*, Boston, July 2004. Springer V. (LNCS 3114), p. 44-57. [http://www.cs.rug.nl/~wim/mechver/lockfree\\_reduction](http://www.cs.rug.nl/~wim/mechver/lockfree_reduction).
- [4] Gao, H., Groote, J.F., Hesselink, W.H.: Almost wait-free resizable hash tables (extended abstract). *Proceedings of 18th International Parallel & Distributed Processing Symposium (IPDPS)*, Santa Fe, Apr. 2004. Electronic proceedings IEEE 2004, section 13. <http://www.cs.rug.nl/~wim/pub/hashtable.ps>.
- [5] Dechsiri, C., Bosma, J.C., Hoffmann, A.C., Gao, H., Dehling, H.G.: A stochastic model for particle mixing and segregation in fluidized beds with baffles. *Proceedings PARTEC 2001 international congress for particle technology*, Nurnberg, March 2001.
- [6] Gao, H., Hesselink, W.H.: A general lock-free algorithm using compare-and-swap. Submitted. [http://www.cs.rug.nl/~wim/mechver/lockfree\\_reduction](http://www.cs.rug.nl/~wim/mechver/lockfree_reduction).

## Experiences:

- 2000-2001, teaching assistant at Groningen university: Measure theory
- 2001-2002, teaching assistant at Groningen university: Elementary probability theory
- 2001-2002, teaching assistant at Groningen university: Programming B.
- 3-5 Apr. 2002, IPA Lentedagen on Middleware, Heeze, the Netherlands.
- 2002-2003, teaching assistant at Groningen university: Operating system.
- 2002-2003, teaching assistant at Groningen university: Concurrency.
- 25 Apr. 2003, gave a talk on 7th Dutch Proof Tools Day, Amsterdam, the Netherlands.
- 19-30 May 2003, EEF Foundations School on Concurrency, Heeze, the Netherlands.
- 17-21 Nov. 2003, IPA Herfstdagen on Compositional Programming Methods, Beekbergen, the Netherlands.
- 2003-2004, teaching assistant at Groningen university: Program correctness.

- 14-16 Apr. 2004, IPA Lentedagen on Hybrid Systems, Heeze, the Netherlands.
- 9 July 2004, gave a talk on 8th Dutch Proof Tools Day, Nijmegen, the Netherlands.
- 15 July 2004, gave a talk on 16th International Conference, CAV 2004, Boston, MA, USA.

## References (available upon request)

- Prof. dr. Wim H. Hesselink  
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- Prof. dr. ir. J.F. Groote  
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## Main achievements (before 2000)

- Independently Developed Softwares:
  1. Detecting System for Biological Chemiluminescence Intensity, designed by C++, for the Institute of Biophysics, the Chinese Academy of Science.
  2. Psychological Testing & Analyzing System, designed by C++, for Psychological Department of Peking University.
  3. The Hospital of Wrong Words, designed by C, for the Shihui Company.
  4. CAI of Information Techniques and Exercises, designed by C, for China Encyclopedia Press.
  5. School-roll Management System, designed by Visual Basic, for the Middle school.
  6. School Sports Management System, designed by Visual Foxpro, for the Middle school.
  7. Physical Examination System for a School Clinic, designed by Visual Foxpro, for the Middle school.

8. Marketing Management System, designed by Visual Foxpro, for the AKS Painting Company of Netherlands.
- Participating in the following softwares:
    1. System Bank for High School Math Tests (Main Designer). This system can automatically generate an exam paper according to all kinds of criteria. Alterations of some criteria such as difficulty can be conducted automatically according to the analysis of exam papers.
    2. Internet School of the High School Affiliated to the Renmin University of China (Group Leader). A visualized school on Internet enables the following work including the school enrollment, teachings and learnings, tests, corrections of homework, answering questions and so on.
  - Main publications (before 2000):
    - [1] Gao, H.: Computer Course for Hua Luogeng Math school. *China Encyclopedia Press*, Jan. 1994.
    - [2] Gao, H.: Applied Software Course for High School Students. *Peking University Press*, May 1995.
    - [3] Deng, J.X., Gao, H.: Accuracy Computing Method. *The Science Press*, Mar. 1996. This book got subsidization from Science Publishing Fund and Research of Parallel Algorithm in Medium & Large Scale, one of the key projects in Chinese Science Academy eighth five-year plan.
    - [4] Yao, M.C., Gao, H.: A guide for Higher Mathematics. *The Higher Education Press*, May 1997.
    - [5] Yao, M.C., Gao, H.: Synchronous Exercise for Higher Mathematics. *The Higher Education Press*, May 1997.
    - [6] Zhou, A.M., Gao, H.: Computer course for High school students. *China Measure Press*, Aug. 1997.
    - [7] Chen, X.H., Gao, H.: Information Techniques. *China Encyclopedia Press*, Mar. 1998.
    - [8] Gao, H., Li, Y.M.: The ABC of Informatics Olympic Contest. *Peking University Press*, June 1998
    - [9] Gao, H., Li, Y.M.: Exercise for the ABC of informatics Olympic Contest. *Peking University Press*, June 1998
    - [10] Gao, H., Li, Y.M.: Computer Course for Secondary School Students. *Peking University Press*, Apr. 1999.