

# Resume for Taeil Hur

## Personal

### *Taeil Hur*

- Risk Management Team  
Hi Investment & Securities

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## Objective

### *Entry Level Quant*

## Qualifications

- **Solid background in mathematics and physics**
- **Expert programming skills on various languages**
- **Strong basic knowledge in financial engineering**

## Education

- Mar.2003 - Jan.2009      Ph.D. in Physics, KAIST, Korea
- Mar.2001 - Feb.2003      M.S. in Physics, KAIST, Korea
- Mar.1996 - Feb.2001      B.S. in Physics, KAIST, Korea ( Minored in Electrical Engineering )
- Mar.1994 - Feb.1996      Gyeongnam Science High School, Korea

## Awards

### **Mathematics**

- Encouragement Prize (4~8th Place) in National Undergraduate Mathematics Competition, The Korean Mathematics Society, 2000.
- Special Prize in National Undergraduate Mathematics Competition, The Korean Mathematics Society, 1999.

### **Physics**

- Bronze Medal in National High-school Physics Competition, Ministry of Eduation, 1995.
- 1st Place in Gyeongsangnam-do High-school Physics Competition, Gyeongsangnam-do Office of Education, 1995.
- 6th Place in Gyeongsangnam-do High-school Physics Competition, Gyeongsangnam-do Office of Education, 1994.

### **Programming ( with C Language )**

- Encouragement Prize in National High-school Programming Competition, Ministry of Science and Technology, 1994.
- Gold Medal (1~4th Place) in Gyeongsangnam-do High-school Programming Competition, Gyeongsangnam-do Office of Education, 1994.

## Computer Science Skills

- **Good knowledge of hardware and software**
  - Experience in **setting-up Linux cluster** and converting plain C codes for numerical simulation to their **parallel version** ( using MPI library ) in a part-time research project at KAIST nano photonics lab. ( yr 1999 )
  - **A system administrator** of mail and calculation servers in KAIST high energy physics group for 2 years of my graduate study ( yr 2002~2003 )
  - B.A. **Minor in Electrical Engineering**
  - Certification for Information Processing Engineer ( 정보처리기사 , yr 2000 )
- **Solid experience with C,C++, Mathematica, and FORTRAN languages**
  - **A couple of prizes** in programming competitions using **C language** during high school
  - Most of my Ph.D. research topics involve **hard numerical and symbolic calculations** using above languages :
    - Dark matter relic density and one-loop Feynman diagram calculation
- **Extensive familiarity with MATLAB,VBA and SQL**
- **Experience with Monte-Carlo simulation of Equity-Linked-Security using VBA/C++**

## Knowledge in Finance

I learned many different aspects of the Finance Engineering in the last several months, mainly from reading, but also from interactions with other people who work in financial firms. Books I studied include:

- on **Finance Engineering and Derivatives**
  - *Options, Futures, and Other Derivatives* by John Hull
  - *Mathematics for Finance* by Capinski and Zastawniak
- on **Risk Management**
  - 2008 FRM SCHWESER Study Manul
- on **Stochastic Calculus**
  - *Elementary Stochastic Calculus ( with Finance in View )* by Thomas Mikosch

Also I passed 2008 GARP **FRM** exam.

( I scored in the 1st Quartile -- the top 25% -- in every category. )

## Language Skills

- **Korean** : Mother language
- **English**: Good, TOEIC 935 out of 990 ( Dec. 2007 )

## Publications

- **Common gauge origin of discrete symmetries in observable sector and hidden sector**  
**Taeil Hur**, Hye-Sung Lee, Christoph Luhn  
Accepted in **JHEP**
- **Neutral scalar Higgs bosons in the USSM at the LHC**  
S.W. Ham, **Taeil Hur**, P. Ko, S.K. Oh  
Published in J. Phys. G: Nucl. Part. Phys. 35 (2008) 095007
- **A Supersymmetric U(1)-prime model with multiple dark matters**  
**Taeil Hur**, Hye-Sung Lee, Salah Nasri  
Published in Phys.Rev.D77:015008,2008
- **Electroweak symmetry breaking and cold dark matter from hidden sector technicolor interaction**, **Taeil Hur**, Dong-Won Jung, P. Ko, Jae Yong Lee  
e-Print: [arXiv:0709.1218 [hep-ph]]
- **Antisymmetric rank--2 tensor unparticle physics**  
**Taeil Hur**, P. Ko, Xiao-Hong Wu  
Published in Phys.Rev.D76:096008,2007

## Presentations

- **The 16th International Conference on Supersymmetry and the Unification of Fundamental Interactions** , June 16 - 21, 2008, Seoul, Korea
- **Workshop on "Challenges and Opportunities at the LHC"**  
Jan 9 - 11, 2008, NTHU in Hsinchu, Taiwan
- **The 4th Workshop on Physics at Hadron Colliders**  
May 13, 2006, KIAS in Seoul, Korea