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Education

- **Ph.D. in Physics**, *University of Washington*, Seattle, Washington, USA, 2002
Thesis: *Understand avalanche systems through underlying interface dynamics*
Advisor: Prof. Marcel den Nijs
- **M.S. in Physics**, *University of Washington*, Seattle, Washington, USA, 1996
- **B.S. in Physics**, *National Taiwan University*, Taipei, Taiwan, 1992
Advisor: Prof. Ting-Wai Chiu

Employments

- **Undergraduate Research Assistant**, *National Taiwan University*, 1991-1992
with Prof. Ting-Wai Chiu on Dirac propagators in external fields
- **Second Lieutenant**, R.O.C. Army, Taiwan, 1992-1994
Maintenance officer of Nike Hercules missile system
- **Graduate Teaching Assistant**, *University of Washington*, 1994-2002
Lab instructor for freshman labs, electronics lab, and modern physics lab
Grader for freshman physics, statistical mechanics, advanced quantum, and advanced classical mechanics
- **Graduate Research Assistant**, *University of Washington*, 1997-2002
with Prof. Marcel den Nijs on interface growth models and self-organized criticality
- **Research Associate**, *Case Western Reserve University*, 2003-2006
with Prof. Elena E. Dormidontova on statistical physics of reversibly associated polymers
- **Research Associate**, *University of Pittsburgh*, 2006-2009
with Prof. David Jasnow on theoretical biophysics
- **Assistant Research Scholar**, *National Center for Theoretical Sciences*, 2009-2012
in Physics Division focus on theoretical biophysics
- **Part-Time Faculty**, *Department of Physics, National Tsing Hua University*, 2011-2012
teaching *Computation for Physics in Springs*

- **Research Scientist**, Institute of Physics, Academia Sinica, 2013-2019
Active and Biological Systems group
- **Postdoctoral Researcher**, National Yang Ming Chiao Tung University, 2019-present
with Prof. Cheng-Chang Lien on theoretical and computational neuroscience
- **Adjunct Assistant Professor**, National Yang Ming Chiao Tung University, 2020-present
teaching Computational Neuroscience in Autumns, Data Analysis for Neuroscience in Springs

Research Topics

- **Computational**
modeling of spiking neuronal networks; artificial neural networks; restricted Boltzmann machines; Monte Carlo simulations; coarse-grained polymer modeling; statistical modeling; differential equation systems, agent-based modeling
- **Biophysics**
computational neuroscience; neural plasticity; evolutionary dynamics
- **Polymer**
ring-chain equilibrium; metallosupramolecular polymers; polymer brushes; targeting polymer nanoparticles; exchange kinetics of diblock copolymer micelles
- **Physics**
non-equilibrium critical phenomena; direct percolation; interface growth models; contact processes; self-organized criticality; granular avalanches

Computational Skills

Programming: C++, C, Java, FORTRAN, Pascal **GUI toolkit:** GTK+, gtkmm, OpenGL, WebGL
Scripting: Python, BASH, JavaScript, PHP, Perl **Computing:** MPI, HDF5, GNU autotools, PBS(Torque), Condor
Scientific: MATLAB, Mathematica, MCell **Other:** HTML5, Drupal, XSLT, AJAX, MySQL

Extra Curriculum

- **President**, *Electronics Industry Study Club*, Taipei Municipal Chien Kuo High School, 1986-1987
- **Student Lecturer**, *Computer Study Club*, National Taiwan University, 1988-1991
Subjects: programming, data structure, algorithmics
- **Student Lecturer**, *Rocket Club*, National Taiwan University, 1990-1991
Subject: electronics
- **Editor**, *Space Time, the periodical of the Society of Physics Students*, National Taiwan University, 1991
- **Communication Officer, Web Master**, *Chinese Social Betterment Society*, University of Washington, 1994-1996

References

Available upon request.