

Curriculum Vitae of Dr. Chang-Pu Sun

Personal Data:

Name: Chang-Pu Sun (also spelled Sun , Changpu)
Work Address: Institute of Theoretical Physics, Chinese Academy of Sciences ,
Beijing 100190, China.
Home Address: Zhong Guan Cun North 2nd Street 11-203#, Beijing 100190, China
Citizen: The People's Republic of China
Sex: Male
Birth Date: Jul. 17, 1962
Birth Place: Xinjin County, Liaoning Province, P. R. China
Marriage: Married, with one daughter
Health: Excellent
Final Degree: Ph.D., Nankai University

Education:

Sept., 1980 to Jul.,1984: Undergraduate Student, Department of Physics, Northeast Normal University, for B.Sc.
Sept.1984 to Jul., 1987: Graduate Student, Department of Physics Northeast Normal University, for M.S.
(supervised by Prof. Z.Y. Wu (Jilin University))
Sept., 1989 to Jun., 1992: At his post, Nankai Institute of Mathematics, for Ph.D.
(co-supervised by Profs. C.N. Yang (SUNY, USA) and M.L. Ge (Nankai))

Employment and Occupations:

Jul., 1987 to Jun., 1988: Research Assistant, Northeast Normal University
Jul., 1988 to Jun., 1990: Lecturer, Northeast Normal University
Jul., 1990 to Nov., 1992: Associate Professor, Northeast Normal University
Dec.,1992 to Dec.1996 : Professor, Northeast Normal University
Dec.,1996 to Present: Professor, Institute of Theoretical Physics,
The Chinese Academy of Science
Dec.,2002 to Dec.2008 Chair Professor of Physics in Adjunction
Department of Physics, Nankai University
Nov.,2007 to Present Academician of Chinese Academy of Sciences

Visiting

Jul., 1992 to Aug., 1993: CEEC Fellow, The State University of New York
Aug., 1994 to Dec.,1994: Visiting Professor, Drexel University and The State
University of New York at Stony Brook
Aug. ,1995 to Sept., 1995 Senior Visiting Fellow,
Advanced Research Institute Hitachi Co., Japan

May, 1997 to Jul. ,1997, C. N. Yang Fellow,
 The Chinese University of Hong Kong
 Mar. ,1998 to Jul. ,1998, Visiting Professor,
 The Chinese University of Hong Kong
 Mar. ,1999 to Jul. ,1999, Visiting Professor,
 The Chinese University of Hong Kong
 Oct., 2000 to Dec., 2000, Visiting Professor,
 ESI The Erwin Schrödinger International Institute fo Mathematical
 Physics, Vienna, Austria.
 Sept., 2001 to Dec., 2001, Visiting Professor,
 School of Physics, Georgia Institute of Technology,
 Sept., 2004 to Nov., 2004, Visiting Professor,
 Frontier Research System, RIKEN,
 Sept., 2005 to Nov., 2005, Visiting Professor,
 Frontier Research System, RIKEN
 April, 2006 to May., 2006, Visiting Professor,
 The Chinese University of Hong Kong
 Sept., 2007 to Nov., 2007, Visiting Professor,
 Frontier Research System, RIKEN
 Dec., 2008 to Jan., 2009, Distinguished Visiting Professor,
 Advanced Science Institute , RIKEN
 July., 2009 to Sept., 2009, Distinguished Visiting Professor,
 Advanced Science Institute, RIKEN
 Nov., 2009 to present , Academician of the Chinese Academy of Sciences

Current Fields of Interest:

I am interested in fundamental aspects of quantum mechanics, e.g., quantum measurement problems, open quantum system approaches to quantum decoherence , and quantum statistics thermodynamics. My researches are partially oriented to the future quantum technologies, such as quantum information processing, quantum coherence devices and even the new generation of energy resource based on the artificial photosynthesis with quantum effects.

For fundamental quantum physics, I believe that the origin of many problems, not yet understood completely, lurk in the boundary between classical and quantum (or microscopic and macroscopic). Not satisfied with investigating these problems only on the philosophical basis, I yearn for a "down-to-earth" understanding of them in association with the most recent experiments about circuit QED of superconducting system, Opto-mechanics with nano-mechanical resonators, the photon transport in low-dimensional confined structure, and the ultra-cold atoms in Bose-Einstein condensate.

My research interests also include probing mathematical structures behind the dynamics of physical systems, such as quantum groups related to the Yang-Baxter equation, Berry geometric phase related to general gauge symmetry and the symmetry breaking in finite size thermodynamical systems far-off equilibrium

Professional Service:

● **Editor of Academic Journals**

Feb, 2008, to Present **Advance in Mathematical Physics**
Feb, 2005, to 2009 Editorial Board Member, Journal of Physics A,
Feb, 2005, to Present: Editorial Board Member, Science In China G,
Jan., 1995 to Present: Editor of the Chinese Journal of Quantum Optics
Jan., 1996 to Present: Editor of Communication of Theoretical Physics
Jan., 1997 to Present: Editor of Modern Physics (Chinese)

● **Referee for Research Journals:**

Phys. Rev. Lett., Phys. Rev. A, E
Phys. Lett. A, J. Phys. A,
J. Opt. B. (Semi-Classical and Quantum), Mod. Phys. Lett.
Inter. J. Mod. Phys., Communications in Theoretical Phys.
Chinese Phys. Lett, Physica,

● **Reviewer:**

NSFC (Theoretical Physics proposals).
Funding of CAS
External Examiner, (2000-2005), The Chinese University of Hong Kong

Academic Leadership:

2002- to Present, Vice Director, Center for Cold Atom Physics, CAS
Sept., 1994 to Present: Committee member of the Leadership Committee for
Theoretical Physics, The National Natural Science Foundation
of China
Jan., 1995 to Present : Committee member of the Academic Committee for the
Institute of Theoretical Physics, CAS
Jan., 1997 to Present : Committee member of the Academic Committee for
CAS Lab. Of Matter Structure., Univ. Science. Tech. China
Jan., 2000 to Present : Committee member of the Academic Committee for National Key Lab. of
Semiconductor, Institute of semiconductor, CAS
Jan., 2000 to Present : Committee member of the Academic Committee for Coalition Quantum
Measurement Lab, Peking University and Tsinghua University

Adjunction Professorship

Jun., 2000 to present : Adjunction Professor, Huazhong Univ. of Science and Tech
Jun., 1999 to present : Adjunction Professor, Tsinghua University
Jun., 1999 to present : Adjunction Professor, Hunan Normal University
Jun., 1996 to present : Adjunction Professor, Northeast Normal University
Jun., 1994 to present : Adjunction Professor, Jilin University

Foundation Supports:

- 1989-1991: Berry's Phases and Induced Gauge Field Theory
National Natural Science Foundation of China
- 1992-1994: Dynamics of Quantum Open System in Quasi-Adiabatic Process
National Natural Science Foundation of China
- 1992-1993: The CEEC Foundation
State University of New York at Stony Brook, USA
- 1993-1996: Dynamics of Quantum Dissipation
Fok Yin-Tung Education Foundation, Hong Kong
- 1995-1997: Special Support for Excellence Young Scientists
National Natural Science Foundation of China
- 1998-2001, National Premier Science Foundation for Young Scientists
National Natural Science Foundation of China
- 2002-2005, Quantum Information Theory
National Fundamental Research Foundation (973)
Ministry of Science and Technology of China
- 2003-2005, Quantum Information Processing based on Macroscopic quantum System
National Natural Science Foundation of China
- 2006-2010, Solid System based Quantum Manipulation
National Fundamental Research Foundation (973)
Ministry of Science and Technology of China
- 2009-2013, Quantum Controlling for Solid State system
National Natural Science Foundation of China

Honors, Awards, and Recognitions:

International

1. Citation Classic Award by SCI (Scientific Citation Index)
Institute of Scientific Information, USA ,2000
2. "The 2000 Topcite Olympics", SLAC Lab. , 2000
3. "Papers most Cited in Mathematical Physics Articles", Stanford University Lib. 2001

In China

1. Member (Academician) of Chinese Academy of Sciences, 2009
2. National Award for Natural Sciences:
Quantum Open System Approach and Its Applications to Quantum Information,
(C. P.Sun, H.T.Quan)
National Award Offices of the People's Republic of China, 2008
3. National Model Employee
The State Council of the People's Republic of China,1995
4. National Science and Technology Medal for Yang Scientists
The Chinese Science and Technology Association, 1993
5. Super- Level State Medal of Model Workers
The Jilin Province Government, 1994

6. Prize for Advance in Science and Technology: Yang-Baxter Intergrable System
(M.L.Ge, C.P. Sun, K. Xue)
The China National Education Committee, 1990
7. Prize for Advance in Science and Technology: Generalized Boson Realization
Theory and Its Applications, (C.P. Sun, H.C. Fu)
The China National Education Committee,1995
8. Prize for Advance in Science and Technology: High-Order Quantum Adiabatic
Process with Berry's Induced Gauge Field, (C.P. Sun, L.Z. Zhang, Q. Xiao)
The China National Education Committee, 1990
9. Jilin Province Excellence Youth Top Ten
Jilin Province Government,1994
10. Prize for Advance in Science and Technology: Quantum Groups
(M. L. Ge, C.P. Sun, K. Xue)
The China National Education Committee,1997
11. First order Prize for Excellence Young Scientist,
The Chinese Academy of Science, China, 1999