

Hoong-Chien (Paul) Lee
University Chair Professor of Biophysics
Department of Biomedical Sciences and Engineering
National Central University
Zhongli District, Taoyuan City, Taiwan 32001

Tel: (+886-3) 422-7151 ext. 36109 | Fax: (+886-3) 427-3822
Email: *hcleel2345 at gmail dot com* | URL: <http://sansan.phy.ncu.edu.tw/~hcleel/>

— **Biographical Sketch** —

Dr. H.C. Lee has been University Chair Professor of Biophysics at the National Central University since 2009. He was a Ministry of Education National Chair Professor, 2006-09, and a Chair Professor at the Physics Department, Chung Yuan Christian University, 2012-18.

Dr. Lee was educated at National Taiwan University (BSc, 1963) and McGill U. (MSc. 1967; PhD, 1969). He was employed at the Canadian Chalk River Research Laboratories as a theoretical physicist from 1968 to 1993, starting as postdoctoral fellow in 1968 and appointed as senior research officer in 1984. In 1992-93 he was founding director of the Center for Mathematical Sciences. His fields of research were, in succession, nuclear physics, particles and fields, and mathematical physics.

In 1993 Dr. Lee returned to Taiwan. He chaired the Physics Department, National Chung Hsing University from 1993 to 1995. In 1995 he joined as professor at the Department of Physics, National Central University. There, Dr. Lee was the founding director of the Center for Complex Systems in 1996, which in 2003 spawned the Graduate Institute for Biophysics, first of its kind in Taiwan. In 1997 Dr. Lee began to work in theoretical and quantitative biology. He was founding Director of the (Graduate) Institute of Systems Biology and Bioinformatics (now part of the graduate program at the new DBSE since 2014), 2006-12. Officially retired at NCU since 2012, Dr. Lee remains a University Chair Professor and continues to teach at DBSE. In the earlier years after 1997, Dr. Lee worked on the dynamics of molecular evolution through the study of generic genomic sequences of species. In recent years he used public data including microarray sequences to gain insights in human complex diseases, including cancers, stem cell, human aging, and Alzheimer's disease (see publications at <http://sansan.phy.ncu.edu.tw/~hcleel/pub/all-pub.html>).

Dr. Lee was a visiting professor for various periods at U. Toronto, McGill U., Brookhaven National Labs., Niels Bohr Inst., Cambridge U., and Beijing Inst. Theoretical Physics as a physicist, and Stanford U., U. Hamburg, Zhejiang U., Shanghai U., BITP, and Huazhong U. Sci. & Tech. as a biomedical scientist.

— Curriculum Vitae —

Hoong-Chien (Paul) Lee

Department of Biomedical Sciences and Engineering
National Central University
300 Zhongda Road, Zhongli District, Taoyuan City, Taiwan 32001

Tel: (+886-3) 422-7151 ext. 36109 | Fax: (+886-3) 427-3822

Email: *hcleel2345 at gmail dot com* | URL: <http://sansan.phy.ncu.edu.tw/~hcleel/>

DATE AND PLACE OF BIRTH: 1941 August 12, Hong Kong

CITIZENSHIP: Republic of China

EDUCATION

Physics Department, National Taiwan University, Taipei, 1959-1963 (BSc.1963)
Physics Department, McGill University, Montreal, 1964-1968 (MSc., 1967; PhD, 1969)

CURRENT POSITIONS

University Chair Professor of Biophysics, National Central University (2009-)
Adjunct Professor, Department of Biomedical Sciences and Engineering, National Central University (2014-),

EXPERIENCE

Chair Professor, Dept. of Physics (2012-18), Chung Yuan Christian University
Head and Professor, Graduate Institute of Systems Biology and Bioinformatics, National Central University (2006-12)
Department of Physics (1995-2012), National Central University
Chair Professor, Department of Physics (2012-18), Chung Yuan Christian University
Visiting Professor, Institute of Systems Biology, Shanghai University (2011-15)
Visiting Professor, Institute of Modern Physics, Zhejiang University (2005-10)
Visiting Professor, Institute of Theoretical Physics, CAST, Beijing, (1992-2005)
Chairman and Professor of Physics, Department of Physics, National Chung Hsing University, Taichung, Taiwan (1993-95)
Adjunct Professor, Department of Applied Mathematics, University of Western Ontario, London, Canada (1986-94)
Director, Centre for Mathematical Sciences (1992-93); Senior Research Officer, Theoretical Physics Branch (1985-93), Research Staff Member (1968-93), Chalk River Laboratories, AECL Research, Ontario, Canada.

SCHOLARSHIPS, FELLOWSHIPS, AWARDS

University Chair Professor of Biophysics (National Central University, 2009-)
University Chair Professor (Chung Yuan Christian University, 2012-18) Ministry of Education (ROC) National Chair Professor (2006-2009)

National Science Council (ROC) Outstanding Research Award (2001-2002)
 Fellow, Physical Society of the Republic of China (Elected 1997)
 NSC Outstanding Research Award (1994-95)
 NSC Research Awards (1993-, annually)
 Natural Sciences & Engineering Research Council Grants (Canada) (1986-1994)
 NATO Advanced Study Institute Award (1989)
 NATO Collaborative Research Grant (1988)
 Robinson College (Cambridge, UK) Fellowship (1987)
 NATO Advanced Research Workshop Award (1986)
 NATO Collaborative Research Award (1985)
 Royal Society Fellowship (UK) (1985)
 Canadian National Research Council Scholarships (1966-68)

VISITING POSITIONS

Visiting Professor, Institute of Systems Biology, Shanghai University, Shanghai, 2011-15
 Visiting Professor, Institute of Modern Physics, Zhejiang University, Hangzhou, 2005-10
 Center for Bioinformatics, University of Hamburg, Fall, 2005
 Santa Fe Institute, Spring, 2005
 Center for Mathematical Research, University of Montreal, August-October, 2002
 Physics Department, Stanford University, March-June, 2001
 Summer visits to Chalk River Labs, Simon Fraser University, TRIUMF and University of British Columbia, 1994-2000
 Physics Department, National Taiwan University, Summer, 1993
 Visiting Professor, Institute of Theoretical Physics, CAST, Beijing, 1992-2005
 Research Institute of Mathematical Sciences, Kyoto University, Summer, 1991
 Nankai Mathematics Institute, Tianjin University, Tianjin 1988
 Department of Applied Mathematics and Theoretical Physics, Cambridge University, 1985, 1987
 Physics Department, National Taiwan University, Spring, 1984
 Physics Department, University of Alberta, Summer, 1981
 TRIUMF, Summer, 1979
 Niels Bohr Institute, University of Copenhagen, Summer, 1978
 Physics Division, Brookhaven National Laboratory, Summers, 1977, 1978
 Physics Department, McGill University, 1975
 Physics Department, University of Toronto, Spring, 1973

SERVICE

Member, Natural Science Division Advisory Committee, National Science Council, 2003–
 Coordinator, National Science Council Center for Theoretical Sciences Core Program on Biology Inspired Theoretical Sciences (BITS), 2000–
 Member, Ministry of Education Committee on Physics Terminology, 2000–
 Member, Executive Committee, National Science Council Center for Theoretical Sciences, 1997-2000

Member, Council, Chinese Physical Society, 1997-2000
 Member, Advisory Board, Canadian Association of Physicists Summer Institutes, 1987-1992
 Chairman, Particle Physics Division, Can. Assn. Phys., 1989 Councilor, Institute of Particle Physics (Canada), 1986-89
 Member, NSERC (Canada) Visiting Committee to National Centre for Mathematical Research, Université de Montréal, 1989

ORGANIZATION OF SCHOOLS AND INSTITUTES

Organizer

BITS (Biology Inspired Theoretical Sciences) School and Workshop Series:

- I. *What can theoretical physicists do in biology?* NCU, Dec. 22-23, 1997
 - II. *1st Cross-Strait BITS Workshop*, NCU, Zhongli, June 15-17, 1998
 - III. *3rd BITS Workshop*, National Center for Theo. Sci., Shinchu, Jan. 22-23, 1999
 - VI. *Advanced school on protein*, NCU and National Center for High Performance Computing, Shinchu, June 7-11, 1999
 - V. *2nd Cross-Strait BITS Workshop*, ITP, Beijing, May 15-19, 2000
 - VI. *3rd Cross-Strait BITS Workshop*, Donghua Univ., Hualian, Taiwan, July 8-12, 2002
 - VII. *4th Cross-Strait BITS Workshop*, Xiamen University, Xiamen, June 26-30, 2004
 - VIII. *5th Cross-Strait BITS Workshop*, Donghai Univ., Taichung, June 2006.
 - IX. *6th Cross-Strait BITS Workshop*, Hunan Normal University, Changsha, June 2008
- Workshop on Applied Mathematics*, Chalk River, 1992
NATO Adv. Study Institute on Physics, Geometry and Topology, Banff, 1989
NATO Adv. Res. Workshop on Super Field Theories, Vancouver, 1986 *Workshop on Kaluza-Klein Theories*, Chalk River, 1983

Co-organizer

Symposium in Memorial to C.S. Wu, Taipei, 1997 Summer
Second Cross-Strait Workshop on High and Medium Energy Physics, Zhongli 1997 Summer
Spring School on Particles and Fields, Nantou, 1994 Spring
Can. Assn. Phys. Summer Institute on Field Theory in Two Dimensions, Edmonton, Alberta, 1988
Summer Institute on Quantum Field Theories, London, Ont. 1985

RESEARCH INTEREST

Before 1997: Many-body theory and nuclear physics (1968-73); Fundamental properties of electro-weak interaction in the nucleus (1974-82); Particle and fields (1983- 1995); Yang-Baxter relation, knot theory, and quantum algebra (1988-1995); Complex systems (1995-1997).

1997-2020: In the earlier years after 1997, Dr. Lee worked on the dynamics of molecular evolution through the study of generic genomic sequences of species. In recent years he used public data including microarray sequences to gain insights in human complex diseases, including cancers, stem cell, human aging, and Alzheimer's disease.

PUBLICATIONS

See List of Publications at: <http://sansan.phy.ncu.edu.tw/~hcleee/pub/allpub.html>