Department of

# PHYSICS



The Chinese University of Hong Kong

## Postgraduate Studies (MPhil-PhD) in "Physics" and "Materials Science and Engineering"

### Features and Strengths

State-of-the-art research and participation in international collaborations (CERN, LIGO, Daya Bay Neutrino project)

Close supervisor-student relationship in collaborative mode

Many of the students' works publishable in high impact journals (e.g. Nature, Nature Physics, Nature Nano Technology, PRL, Advanced Materials, etc.)

Financial support for conference presentations

Excellent facilities (experimental and computational)

Employment opportunities ranging from academic, governmental, and private sector positions

Gravitational Wave Observatories



Frequent discussions and interactions between students and supervisors



Our students have won a number of awards and scholarships in various academic activities

> Xeuss 2.0\* High-performance powerful clusters for parallel calculation

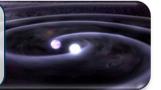
Website: http://www.phy.cuhk.edu.hk E-mail: pgadm@phy.cuhk.edu.hk Phone: 852-3943-6302



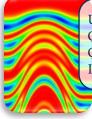


### **Research Areas**

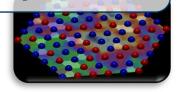
Particle Physics, Cosmology, High Energy Physics, Gravitational Waves, Pulsars, Star Formation



Condensed Matter Physics, Electronic and Optical Properties of Semiconductor Nanostructures, Interacting Electron-Phonon Systems, Strongly Correlated Systems, Topological Matters



Ultracold Atoms and Molecules, Quantum Matters, Quantum Optics, Quantum Sensing, Quantum Information and Quantum Physics



Complex Systems, Turbulence

Surface Science and Nanostructures on Surfaces, Synthesis and Property of Metal and Semiconductor Nanostructures, Plasmonics Properties of Metal Nanostructures, Optical Properties of Semiconductors, Nonlinear Optical Properties of Organic Materials

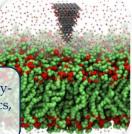
Bacterial Motion, Colloids, Glass Formation, Liquid-Solid Impact



Flexible scheme to best match students and supervisors' research interests



Computational Physics, Manybody Computational Physics, Computational Biophysics





Fabrication and Characterization of Biomorphic Materials, Ceramic-Metal Matrix Compounds, Thin Film Growth and Magnetic Oxides, Nanostructured Metal Composites, Nano-Bio Interface and Nanoplatform for Theranostic Applications, Energy Storage Materials

### **Destinations After Graduation**

#### Higher Institution

#### Tenure track faculty and postdoc positions, research fellows, etc.

- US: Massachusetts Institute of Technology, Johns Hopkins University, University of Illinois at Urbana-Champaign, UC Santa Barbara, Boston College, Washington University, ...
- Europe: University of Ulm (Germany), University of Twente (Netherlands), University College London (UK), ...
- Asia: The Chinese University of Hong Kong, HKUST, Peking University, Tsinghua University, Fudan University, National University of Singapore, The University of Tokyo, National Taiwan University, ...

## Commerce & Industry

Research scientists, engineers, consultants, analysts, etc.

- China: ASTRI, ClusterTech Limited, SAE Magnetics, Science Park (HK), Jinrui Futures, Bank of China, ...
- Asia: APEC Climate Center (Korea), ASM Pacific Technology Ltd. (Singapore), Sony Corporation (Japan), ...
- International: Bloomberg, Environmental Resources Management, Intel, KPMG Netherlands, EDG Inc. (US), iFire Co (Canada), ...

Government

Postdoctorals, Scientific officers, etc.

• Education Bureau (HK), Hong Kong Observatory, Department of Health (HK), Bureau of Meteorology (Australia), National Astronomical Observatory of China, National Institutes of Health (US), ...

## Facts and Figures

28	Faculty staff	143	Students currently enrolled in M.Phil. and Ph.D. degrees
~80	Courses (PG & UG) offered by the department	HK\$18,725- 19,275	Monthly studentship for regular full-time RPg students (2024-25)
2 years	Normative study period of an M.Phil. degree	HK\$27,600	Monthly stipend for Hong Kong PhD Fellowships* (2024-25)
3-4 years	Normative study period of a Ph.D. degree	HK\$42,100	Annual tuition fee (2023-24) (Tuition waiver for local students
0	e of HK\$13,800 per year for eac		end of HK\$331,200 and a conference
How to Apply			
• Complete a	nd submit <u>Online Application Fo</u>	orm before the dea	adline <u>10 June 2024</u> *.
<ol> <li>copy of explana</li> <li>curricul</li> <li>researcl</li> <li>Recommen</li> </ol>	tory notes indicating the grading um vitae; and n/personal statement, indicating	ic records of all g scheme of the Un g the particular stu	tertiary level studies and official niversity;
between 2-		aring room) will b	amp and the entrance examintation be provided for non-local applicants.
• Admission	offer will be sent to successful a	pplicants via e-ma	il by end of July 2024.
	@phy.cuhk.edu.hk (PHYS) mse@phy.cuhk.edu.hk (MSEG)		

\* Late applications will be considered, but accommodation expenses may have to be borne by the applicants.

## Living on Campus / in Hong Kong

#### Services and Facilities at CUHK

- ★ University Library ★ has one of Hong Kong's most comprehensive collections
- **★ University Health Service ★** provides primary medical care
- ★ Sports Facilities ★ include a sports field for track and field, gymnasiums, an Olympic-sized swimming pool, tennis and squash courts, weight-training rooms and a water-sports centre
- ★ Independent Learning Centre ★ provides students with an immersive language-learning environment to improve their Chinese and English proficiency
- ★ Office of Student Affairs ★ offers professional advice on personal growth and development
- ★ Postgraduate Student Society ★ organizes and promotes academic and recreational activities (such as student conference, movie nights, hiking trips, etc.)

CUHK Physics Student Conference co-organized by the Postgraduate Student and Undergraduate Student Societies



We enjoy the presence of Prof. Chen Ning Yang in his role of Professor-at-Large at CUHK







A melting pot of Eastern and Western cultures – *Chinese and international cuisine, brands and integrated entertainment*  The universities adopt international standards in curriculum design and quality assurance – *qualifications awarded are internationally recognised* 

Studying in Hong Kong is full of opportunities to enrich your study life, it will be an amazing experience!

World-class conditions in finance, trade, innovation and transportation – serving as a pilot city in the Guangdong - Hong Kong - Macao Greater Bay Area A high efficiency, modern and vibrant metropolis – offering super global, regional and local connectivity



