



## Nanjing University

# Leading the way in the physical sciences

**Nanjing University is seeking solutions to the major challenges facing humanity as well as cultivating innovative researchers.**

**F**ounded in 1902, Nanjing University (NJU) is one of the oldest and most prestigious higher education institutions in China. In recent years, NJU has gained new vigour by meeting unprecedented challenges and opportunities. As a key comprehensive university with outstanding faculty, it has enjoyed coordinated development in the humanities, social sciences, natural sciences, technological sciences, life sciences, modern engineering and management. The Nature Index 2016 Rising Stars ranked NJU third among leading institutions globally.

### Physical science advances

Physical science at NJU has a history of over 100 years. In recent years, physical science at the university has contributed significantly to the development of science and technology in China. The discipline of physics at NJU was ranked first in China in 2007 and 2012 by the Ministry of Education of China. Physical science at NJU covers a very broad spectrum of research areas, from cutting-edge technologies and national strategic priorities to fundamental physics.

NJU's three physical-science-related schools have 458 faculty members and supporting staff. Cross-school

laboratories and research centres boast world-class facilities and common platforms for researchers. Among them, the National Laboratory of Solid State Microstructures (NLSSM) aims to develop novel microstructured materials, find new macroscopic and microscopic quantum effects, develop related quantum-physics theories and methodologies, and meet the scientific and technological challenges of the post-Moore and post-petroleum era. In all assessments of State Key Laboratories, NLSSM has been rated as an excellent laboratory since its foundation in 1984. Furthermore, NLSSM has been assessed as one of the institutes in the Asian Pacific Rim (excluding Japan) that has been approaching world-class standards in research since the 1990s (*Nature* **389**, 113; 1997).

NJU researchers have made many important achievements. For example, Naiben Min and his team were awarded the 2006 National First Award for Natural Science for the research on dielectric superlattices; Xiangang Wan and team members proposed a new state of matter — the Weyl semimetal; Hui Liu led a group to invent a new experimental method to emulate the curved space of general relativity in metamaterials; Jia Zhu and coworkers developed a new technology to desalinate seawater and clean polluted water; Minghui Lu and group members discovered new solutions for acoustic topological insulators;

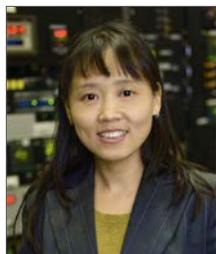
Yongbing Xu (director of the Nanjing–York Joint Centre) has developed the world's leading time-, spin- and angle-resolved photoemission spectrometer.

### Internationalization

NJU's physical-science-related schools and colleges are becoming increasingly internationalized. Academic exchange and research cooperation flourish along with the establishment of joint institutions in more than ten countries. A new tenure-track-like system is being implemented for faculty recruiting, evaluation and promotion. During recent years, over 40 junior faculty members have been recruited from the US, UK, Europe and Japan, primarily through the prestigious National Thousand Global Young Talents programme. International summer camps and student exchanges have attracted many talented students to the division.

With generous support from the government and industry, physical science at NJU will produce not only world-class advances and technologies, but also nurture students and scholars who have a global outlook and the ability to meet the major challenges and opportunities faced by an increasingly globalized society. They will become leaders in shaping the future of China and the rest of the world. Committed to embracing this century of change, NJU encourages scholars and students from around the world to join it.

# Why did you choose NJU?



## Hong Lu

My expertise is molecular beam epitaxy (MBE), which can produce unprecedented materials. I was attracted to NJU because its physics programme is among the best in China and offers great opportunities for exciting research directions and collaborations. Both the

general and research environments at NJU have enabled me to explore many new things.

## Jörg Götte

China is an exciting place for science. The College of Engineering and Applied Sciences at NJU embodies this enterprising spirit. It is a young college with international ties. My expertise and connections open up new areas and facilitate knowledge exchange. In return, I get to work in a research environment that allows me to test and develop new ideas with my colleagues.



## Yang Yu

NJU is like a warm and comfortable home. I enjoy its history, culture and innovation spirit. Its friendly

environment allows me to focus on my research. Its great research facilities, strong funding support and talented students and colleagues make NJU a most attractive places to do challenging and ground-breaking science in my field of superconducting quantum computing. I have never regretted joining NJU.



## Feng Miao

I graduated from NJU in 2004. After studying and working in the USA, I returned to NJU through China's

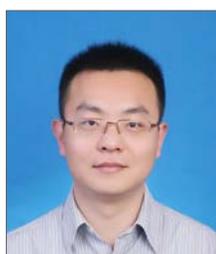
Thousand Youth Talents Plan in 2012. The support of this programme and the attractive starting package offered by NJU allowed me to build a competitive lab and conduct cutting-edge research. The physics programme at NJU is ranked one of the top in China. I have been surprised by the high quality of PhD students at NJU.



## Shi-Liang Zhu

I moved to NJU as a senior professor in physics in 2013. At that time, I was provided with a very competitive

start-up fund, large lab space and good research support. I especially appreciate the collaborative environment in the department of physics. I have built close collaborations. I've always considered my choice to move to NJU three years ago as an important step in my scientific career.



## Xinran Wang

I graduated from NJU in 2004 with a BSc in physics. After spending seven years in two top research groups in the USA, I returned to China because it offers more opportunities for basic research. It was very natural for me to join NJU. I was able to quickly build my own laboratory, primarily focusing on two-dimensional materials. NJU is very strong in the physical sciences. My time at NJU has been very exciting and fruitful. I look forward to more and more young talented researchers joining us.

## Edmond Turcu

I came to NJU to help build the new laser-driven femtosecond XUV beamline, which will enable electron motion in materials to be visualized with femtosecond resolution. We plan to use it to discover new materials with ultrafast properties. I enjoy working in my group at NJU, which brings together expertise in femtosecond lasers, XUV beamline, epitaxial materials growth, spin-ARPES analysis and pulsed laser deposition. I also enjoy teaching an undergraduate course on lasers in English.



## Contact

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