

李政道研究所

Welcome to Multi-Boson Interaction 2022
Have a fruitful meeting

Particle & Nuclear Division Annual Report
Tsung-Dao Lee Institute

December 22, 2021



上海交通大學
SHANGHAI JIAO TONG UNIVERSITY



The Funding Vision of TDLI



Established in 2016

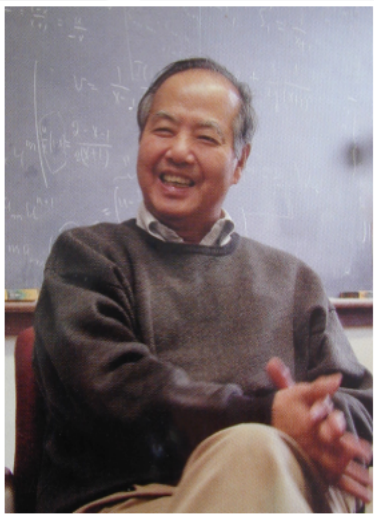
The funding vision:

Build TDLI a world famous source of original innovation, a point of convergence of the world's top scientists, a launch forum for the careers of young scientists.



The scientific mission:

to host cutting-edge research programs on most fundamental questions in particle physics, cosmology and quantum physics.



Honorary director

Director 2107 – 2021

Director since 2021-Nov

New Building Zhangjiang

Tsung-Dao Lee

Frank Wilczek

Jie Zhang

Moved in Nov.2021

Three Divisions

Particle and Nuclear,

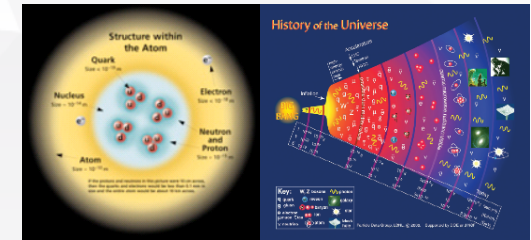
Astronomy and Astrophysics,

Quantum Sciences





The particle and nuclear physics division aims to play an important role in this endeavor. The division consists of three research groups. We focus on some of the fundamental problems in particle physics and cosmology.



Underground Experimental Group

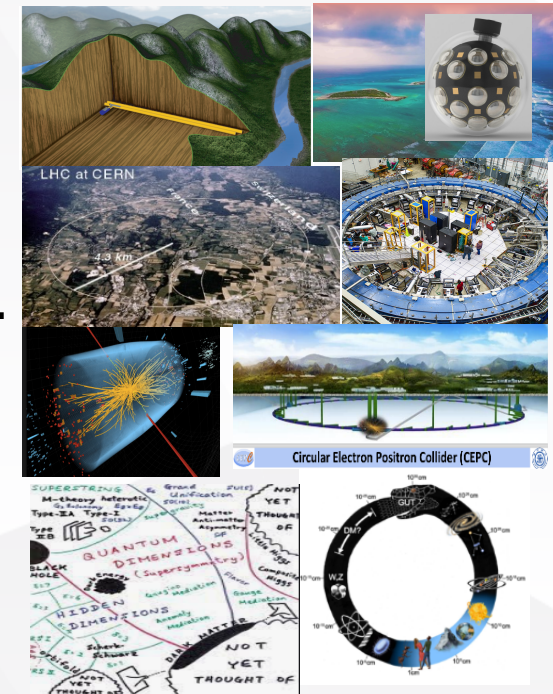
1. Dark Matter and Axion (PandaX).
2. Neutrinoless Double Beta Decay (PandaX).
3. Neutrino mass, Reactor and Cosmic Experiments (JUNO, ICECUBE, Hai-Ling Neutrino Telescope).

Collider Experiment Group

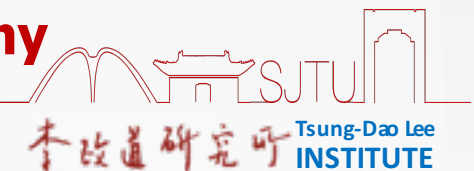
1. LHC Physics.
2. CEPC R&D.
3. Muon g-2.
4. Dark photon.

Theory Group

1. Dark Matter, Dark Energy, Inflation, Phase Transition In the Early Universe Gravitational Waves, and Unification of Different Interactions.
2. Lattice QCD Calculations, Higgs, Neutrino and Flavor Physics, New Physics and Collider Phenomenology.

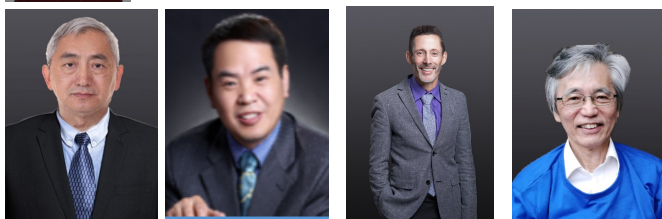


Work closely with SJTU College of Physics and Astronomy



李政道学者 T. D. Lee Fellows

| | | | |
|--|---|---|---|
|  | <p>美国杜克大学 (博后) Postdoc, Duke University, USA 中国科学技术大学 (博士) PhD, University of Science and Technology of China</p> <p>李数 Shu Li</p> |  | <p>日本数物连携宇宙研究机构 (博后) Postdoc, Kavli IPMU, Japan 清华大学 (博士) PhD, Tsinghua University</p> <p>葛韶锋 Shao-Feng Ge</p> |
|  | <p>美国威斯康星大学 (博后) Postdoc, UW-Madison, USA 美国阿拉巴马大学 (博士) PhD, University of Alabama-Tuscaloosa, USA</p> <p>徐东莲 Donglian Xu</p> |  | <p>美国华盛顿大学 (博后) Postdoc, University of Washington, USA 苏黎世联邦理工学院 (博士) PhD, ETH Zurich, Switzerland</p> <p>Kim Siang Khaw</p> |
|  | <p>法国国家科研中心 (博后) Postdoc, Université Paris VI 中国科学技术大学 (博士) PhD, University of Science and Technology of China</p> <p>刘坤 Kun Liu</p> |  | <p>日本东京大学 (博后) Postdoc, University of Tokyo, Japan 密西根大学 (博士) Ph.D, University of Michigan</p> <p>Jason Evans</p> |
|  | <p>美国哈佛大学 (博后) Postdoctoral, Harvard University, USA 日本京都大学 (博士) PhD, Kyoto University, Japan</p> <p>Yuichiro Nakai</p> |  | <p>意大利弗拉斯卡蒂国家实验室INFN (博后) INFN, Italy 美国犹他大学 (博士) PhD, The University of Utah, USA</p> <p>Luca Visinelli</p> |
|  | <p>美国田纳西/伯克利 (博后) Postdoctoral, Tennessee/Berkeley, USA 圣路易斯华盛顿大学 (博士) PhD, Washington University in St. Louis, USA</p> <p>韩君 Sophia Han</p> | <p>Coming soon: Evangelos Sfankianakis, ...</p> | |



Tsung-Dao Lee Professors: Xiao-Gang He, Xiang-Dong Ji, Tsutomu Yanagida, Michael

Division Head Xiao-Gang He, Deputy: Jianglai Liu

Distinguished Professors:

Hong-Jiang He, Jiang-Lai Liu, Hai-Jun Yang

20 postdocs and 30 students





Visiting program:

Multi-Year visitor: L. Maiani, J. Ellis, F. Sannino

Yearly visitor program: Each year about 10 visitors for a month or so long visit

Short time visitors...

Conference, Seminars...

You are welcome to visit TDLI in person for meetings and collaborations in the future

Have a fruitful Multi-Boson Interaction 2022