



# CS Distinguished Lecture by 2022 Nobel Prize – John Francis Clauser

## Nonlocal quantum entanglement is real!

### Speaker:

Professor John Francis Clauser  
2022 Nobel Prize in Physics  
2010 Wolf Prize

Date: 12 April 2024 (Friday)

Time: 4:00pm - 6:00pm

Venue: Lecture Theatre P3, LG1 Floor  
Chong Yuet Ming Physics Building



### Biography:

John Francis Clauser is an American experimental and theoretical physicist. He is renowned for his contributions to the foundations of quantum mechanics, which led to him receiving the 2010 Wolf Prize and the 2022 Nobel Prize in Physics, jointly with Alain Aspect and Anton Zeilinger, "for experiments with entangled photons, establishing the violation of Bell inequalities and pioneering quantum information science." His notable contributions to the foundations of quantum mechanics include the Clauser–Horne–Shimony–Holt (CHSH) inequality, the Clauser-Horne theory of Local Realism, and Freedman-Clauser experiment, which provided the first experimental proof that non-local quantum entanglement is real. Together with the CHSH inequality, the Freedman-Clauser experiment is for quantum mechanics what the Michelson-Morley experiment is for special relativity. Nowadays, the Chinese quantum satellite Micius uses the CHSH inequality and a configuration very similar to that of the Freedman-Clauser experiment.

For registration, please click [here](#) for the link or scan this QR code.

Successful registrants will receive a confirmation email a day before the talk.

All are welcome.

For enquiries, please email [enquiry@cs.hku.hk](mailto:enquiry@cs.hku.hk) or call 3917-2180.

