# THE UNIVERSITY OF HONG KONG

Department of Physics
THE UNIVERSITY OF HONG KONG

HK Institute of Quantum Science & Technology
香港量子研究院

# Recent Advances in Multimode Cavity QED


## Prof. Cristiano CIUTI

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Abstract:

After a general introduction to the cavity control of quantum materials across condensed matter systems, chemical reactions, and superconducting quantum circuits, I will discuss recent advances in our understanding of collective quantum dynamics, critical behavior, and emergent functionalities in multimode cavity QED systems in the non-perturbative regime.


Biography:

Professor Cristiano Ciuti is an innovative condensed matter theorist, and author of pioneering theoretical contributions to the physics of polaritons, quantum fluids of light and ultra-strong light-matter interaction. He obtained PhD at EPFL, Lausanne, followed by a postdoc at the University of California, San Diego. He commenced his research activities in France in 2003, as a lecturer at ENS Paris. In 2006 he was promoted to professor at Université Paris Cité where he is now director of the laboratory Matériaux et Phènomènes Quantiques. His research had led to his election as junior member of Institut Universitaire de France in 2010, Friedel-Volterra Prize in 2019, and APS Fellow in 2021.

**ANYONE INTERESTED IS WELCOME TO ATTEND!**

## Thursday, February 26, 2026, 3:00pm

Room 522, 5/F, Chong Yuet Ming Physics Building, The University of Hong Kong


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*Phone: 28592360 Fax: 25599152. Anyone interested is welcome to attend.*