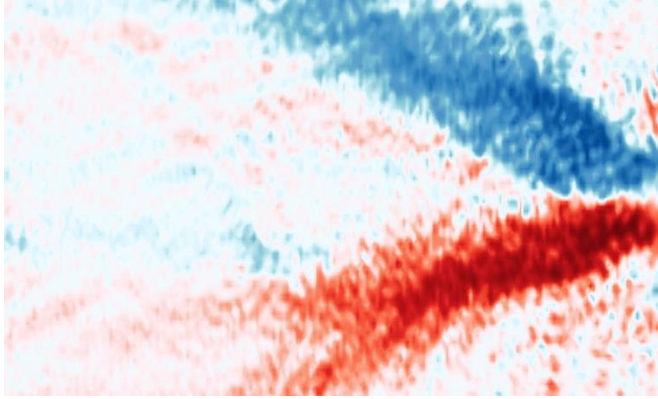




Mirage News (Australia)

10 Dec 2024

Controlling Light-matter Particles At Room Temperature



Scientists have developed a method to control hybrid particles called polaritons - which behave like both light and matter - in a way that is less expensive and more practical to maintain. The breakthrough enables the use of polaritons in high-speed computing and data processing.

How polaritons "spin" can allow them to encode computer data, so changing their spin and movement modifies the data stored in them. But such changes to the particles have only been possible at ultra-low temperatures close to the coldness of outer space.

Now, a study co-led by Nanyang Asst Prof Su Rui from NTU's School of Physical and Mathematical Sciences (SPMS) and School of Electrical and Electronic Engineering, as well as Assoc Prof Timothy Liew from SPMS, has shown that polaritons could be manipulated at room temperature when they are created.

<https://www.miragenews.com/controlling-light-matter-particles-at-room-1374893/>