



STC for Integrated Quantum Materials (CIQM)

Harvard University Howard University Massachusetts Institute of Technology Museum of Science, Boston





1

Superconductivity in Magic-Angle Twisted Bilayer Graphene

Twistronics - unexpected electronic and photonic states in twisted, stacked sheets of graphene and 2D materials.

Bilayer Graphene is a **superconductor** when twisted by the magic angle 1.1 degrees.

Pablo Jarillo-Herrero won **2020 Buckley Prize** and the **2020 Wolf Prize** with Allan MacDonald and Rafi Bistritzer.

Yuan Cao won the 2021 MacMillan Award.





2

Temperature, T (K)

Science Communication Museum of Science, Boston

Science Communication - CIQM students engage museum visitors in Quantum topics through live talks, interactive displays, youtube videos, and special events.

NanoDays, CIQM students show visitors how 'Quantum' works. The girl at right is playing with a atomic crystal with her hands, visualized by a virtual reality headset.

Quantum Matters Contest challenges Center students to describe how a quantum gadget works to an audience of museum visitors.

https://youtube/itlUkZhnCf0?si=HBax3T-tkELtGQsF





Nano Days



Carol Lynn Alpert

Crystal Crystal Virtual Reality



Quantum Matters Contest

Thanks!