Full-body Wireless Data and Power Networking：

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Grand Challenge and Goal：

We realize "full-body wireless data and power clothing" capable of secure wireless communication at 50 Mbps and safe wireless power at 5 W, to continuously operate "skin imagers" around the body

Summary：

- Skin imager can monitor on-skin bio signals during daily lives, but its continuous operation is hindered by the wiring and battery
- To continuously stream bio signals from the skin imagers to the cloud, we're building a clothing-based wireless data and power networking
- Our idea is to create a stretchable 2D wireless physical layer on the textile, being isolated from external wireless space, in addition to MAC layer that controls wireless networking considering human movement

Social Impact：

- Medical shift from hospital treatment to daily healthcare
- Alternative medicalcare in depopulated areas and disaster sites
- Hybrid research community of 2D wireless technology and skin electronics