

# Atomtronics circuits with ultracold matter

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## Abstract:

I present our results on quantum transport with ultracold atoms in engineered optical circuits. I will describe our works on ultracold atoms in ring potentials [1], mimicking the behaviour of electrons in solid state devices.

[1] Pezze' et al., Stabilizing persistent currents in an atomtronic Josephson junction necklace. *Nat Commun* **15**, 4831 (2024)