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Topological Quantum Espionage¹ CHANG-YU HOU, Cal Inst of Tech (Caltech) and UC Riverside, KIRILL SHTENGEL, UC Riverside, GIL REFAEL, Cal Inst of Tech (Caltech) — Can one transfer information encoded in Majorana modes between two distinct platforms? Or must one read out the information before transferring it to a new medium? We explore this question, and find that not only can information be transfered, but in some cases a fermionic occupation number can be stored non-locally by Majorana modes localized in two distinct p-wave superconductors with opposite chirality, as long as some tunneling contact between the two exists.

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