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Surface transport coefficients for three-dimensional topological superconductors[1] HONG-YI XIE, YANG-ZHI CHOU, MATTHEW FOSTER, Rice Univ — We argue that surface spin and thermal conductivities of three-dimensional topological superconductors are universal and topologically-quantized at low temperature. For a bulk winding number ν, there are $|\nu|$ "colors" of surface Majorana fermions. Localization corrections to surface transport coefficients vanish due to time-reversal symmetry (TRS). We argue that Altshuler-Aronov interaction corrections vanish because TRS forbids color or spin Friedel oscillations. We confirm this within a perturbative expansion in the interactions, and to lowest order in a large-$|\nu|$ expansion. We suggest that 3D topological superconductors are a closer analog of the 2D quantum Hall effect than 3D topological insulators.

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