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Topological Kondo effect in transport through superconducting wire with multiple Majorana end states OLEKSIY KASHUBA, CARSTEN TIMM, Institute of Theoretical Physics, TU Dresden — The transport through the interface between normal metal and topological superconducting wire can be affected by the interaction of the lead electrons and edge states in the wire. For a minimum of three Majorana fermions at the interface, we find nontrivial renormalization physics. Classification of the tunneling processes by spin-1/2 and spin-3/2 irreducible representations of the SU(2) group allows to identify two different renormalization behaviors associated with the representations. Renormalization triggered by the interaction enhances one group of the tunneling amplitudes and suppresses another one, depending on whether the coupling ferro- or antiferromagnetic. The nontrivial RG processes manifest themselves in distinct temperature dependencies and different spin polarizations of the current through the interface depending on the sign of the interaction.

Oleksiy Kashuba
Institute of Theoretical Physics, TU Dresden

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