Rare Ω^- five-charged-track decays

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The HyperCP experiment (Fermilab E871) has the largest recorded sample of Ω^- hyperon decays, allowing us to search for three rare decay modes, each with five charged tracks in the final state. We present new measurements of: 1) $\Omega^- \rightarrow \Xi^-\pi^+\pi^-$; 2) $\Omega^- \rightarrow \Xi(1530)^0\pi^-$, which as a $J^P = 3/2^+$ to $3/2^+$ transition should be favored; and 3) the flavor-changing-neutral-current decay $\Omega^- \rightarrow \Xi^-\mu^+\mu^-$. We normalize these measurements both to the five-charged-track topology $\Omega^- \rightarrow \Lambda K^-$ where $\Lambda \rightarrow p\pi^-$ and $K^- \rightarrow \pi^-\pi^-\pi^+$, and to the three-charged-track topology $\Omega^- \rightarrow \Lambda K^-$ where $\Lambda \rightarrow p\pi^-$ but the K^- does not decay in the spectrometer.