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*Unoriented skein exact triangles in equivariant singular instanton Floer theory.*

Equivariant singular instanton Floer homology is a rich algebraic invariant associated to a knot in the three-sphere. The behavior of this invariant under unoriented skein triples of knots is studied, leading to a collection of exact triangles. Some aspects of the results are reminiscent of knot Floer homology, but some aspects appear new. For example, there is an instanton homology group derived from this setup that categorifies the knot signature, and the exact triangles categorify the behavior of the signature under unoriented skein resolutions at a given crossing. (Received September 20, 2021)