Measurement of Transverse Asymmetries from Interference Fragmentation at HERMES.

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The HERMES experiment has measured for the first time single target-spin asymmetries in semi-inclusive two-pion production using a transversely polarized hydrogen target. These asymmetries are related to the product of two unknowns, the transversity distribution function and the interference fragmentation function.

The measured asymmetries are found to be non-zero in the invariant mass range 0.51 GeV<M $_{\pi\pi}<$ 0.97 GeV, indicating that two-pion semi-inclusive deep-inelastic scattering can be used to probe transversity.